LogiCom GmbH

Bus-FMS-Standard

Bus-FMS-Standard-Simulation User Manual

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| | |



1 Introduction

1.1 Work

With the program *BusFMSSim* (Bus-FMS-Standard-Simulation) you can create, change individually all CAN data packages of Bus-FMS-Standard (Version 00.02) and send them to a CAN-Adapter or in a logfile.

1.2 System requirements

- Processor is Pentium-class
- Windows NT 4.0 with Service Pack 5 or 6 Windows 2000 Professional Windows XP Professional Windows 7
- 64 MB RAM
- 10 MB free Hard Disc Drive (plus 20 MB of temporary memory for the installation)
- SVGA-Monitor with minimum 256 colours and a resolution of 800 x 600 pixels
- Installed CAN-Adapter from Vector Informatik GmbH or IXXAT Automation GmbH

1.3 Supported CAN-Adapter

IXXAT Automation GmbH:

- PC-T 04/PCI
- PC-T 04/104
- PC-T 03
- CANdy lite
- iPC-I 320/PCI
- iPC-I 320/104
- iPC-I 320
- iPC-I 165/PCI
- iPC-I 165
- CAN@net
- tinCAN 161
- USB-to-CAN II
- USB-to-CAN compact
- CANBlue

Vector Informatik GmbH:

- CANcardX
- CANcardY
- CANcardXL
- CANcard2
- CAN-AC2-PCI
- CAN-AC2
- CANpari
- EDICcard
- CANcaseXL
- CANboardXL
- CANboardXL_C



2 Installation

2.1 Driver for CAN-Adapter

Requirements for the use of all functions of the program *BusFMSSim* (Bus-FMS-Standard-Simulation) are the installation and put in operation of a CAN-Adapter from Vector Informatik GmbH or IXXAT Automation GmbH.

To this you have to install the fitting CAN-Driver-Library:

| IXXAT Automation GmbH | VCI V2, Version 2.16 |
|------------------------|---------------------------------|
| For Windows 7 user: | VCI V3, Version 3.3 |
| Vector Informatik GmbH | CAN Driver Library, Version 4.3 |

The CAN-Driver-Library and further information could be found on the internet pages of the mentioned companies:

| IXXAT Automation GmbH | http://www.ixxat.de |
|------------------------|---------------------------------|
| Vector Informatik GmbH | http://www.vector-informatik.de |

2.2 Program "BusFMSSim"

For the installation of the program *BusFMSSim* (Bus-FMS-Standard-Simulation) please use the installation program *fms_bus_simulation_210_setup.exe*, which could be started for example with Windows Explorer or by "double-click" on the file.

Please follow the instructions of the installation program.



3 User manual

3.1 Registration

During the first run of the program *BusFMSSim* (Bus-FMS-Standard-Simulation) you should to do your registration.

| CogiCom - Bus-FMS-Standard-Simulation | | |
|---------------------------------------|------------|--|
| Registration | 1 | |
| Source of FMS-Standard | | |
| Vehicle Simulation | Simulation | |
| O Internal LogFile | Recent | |
| O User Logfile | Repeat | |
| | | |
| Manipulation | | |
| Valid Manipulation | Config | |
| | Options | |
| Destination of FMS-Standard | | |
| 🔽 Data Monitor | Monitor | |
| CAN-Adapter | Config | |
| 🗖 Logfile | Save | |
| Start Info | Close | |

Please press the button ______ and type in the *User* and *Key* you have got from LogiCom.

| L | (LogiCom - Bus-FMS-Standard-Simulation - Registration | × |
|---|-------------------------------------------------------|---|
| | Please enter User and Key for registration | |
| | Registration | |
| | User | |
| | Key | |
| | Contact | _ |
| | LogiCom GmbH | |
| | Gautinger Strasse 51 | |
| | 82152 Krailling Germany Phone ±49.89.85663425 | |
| | Phone +49 89 85663425 | |
| | Telefax +49 89 85663426 | |
| | eMail info@logicom.de GmbH | |
| | | |
| | OK Cancel | |

After the registration you can use the program *BusFMSSim* (Bus-FMS-Standard-Simulation) with all its functions without any restrictions and without any limitation.



3.2 Program "BusFMSSim"

After the start of the program *BusFMSSim* (Bus-FMS-Standard-Simulation) you will see the following main window. All actions will be started from this window.

| 📙 LogiCom - Bus-FMS-Standa | ard-Simulation | × |
|-----------------------------|----------------|---|
| User: LogiCom | | |
| Source of FMS-Standard | | |
| Vehicle Simulation | Simulation | |
| 🔿 Internal LogFile 🔄 | | |
| O User Logfile | Repeat | |
| | | |
| Manipulation | | |
| | | |
| Valid Manipulation | Config | |
| | Options | |
| Destination of FMS-Standard | | |
| 🔽 Data Monitor | Monitor | |
| CAN-Adapter | Config | |
| 🗖 Logfile | Save | |
| Start | Close | |

3.2.1 Group "Source of Bus-FMS-Standard"

In the first group of the main window *Source of FMS-Standard* you choose the source for the Bus-FMS-Standard data packages. You have the choice between *Vehicle Simulation*, *Internal Logfile* or *User Logfile*.

If you choose *Vehicle Simulation* all Bus-FMS-Standard data packages will be produced according the vehicle simulation. By choosing *Internal Logfile* or *User Logfile* all stored data packages will be sent without changes.

| Simulation |
|------------|
| Repeat |
| |
| |
| |



3.2.1.1 Vehicle Simulation

If you choose *Vehicle Simulation* for the source of Bus-FMS-Standard data packages, you can start the simulation by pressing the button **Simulation**.

| 🕻 LogiCom - Vehicle Simulation | × × |
|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simulation Cockpit | Measured values |
| | Service Brake Air Pressure 1 (kPa) 1000.0 |
| | Service Brake Air Pressure 2 (kPa) 1000.0 |
| (• • •) | Bellow Pressure Front Axle Left (kPa) 400.0 |
| | Bellow Pressure Front Axle Right (kPa) 400.0 |
| Wheel based speed | Bellow Pressure Rear Axle Left (kPa) 400.0 |
| 0.00 | Bellow Pressure Rear Axle Right (kPa) 400.0 |
| Fuel level (%) Tot vehicle dist (m) Eng. coolant temp. (*C) | Driver's Identification |
| 100 0 15 | Driver 1 Driver_ID_000001 |
| Total fuel used (1) Fuel Rate (L/h) Total engine hours (h) 0 0 0.000 | Driver 2 Driver_ID_000002 |
| Fuel Eco (Km/L) | Tell Tale Status |
| 0 Cruise control Starter ✓ Ignition | |
| Parking | |
| Clutch Brake Accel. Gear | |
| | |
| | |
| | Image: Stop light Base light Base light Buse light Buse light Buse light Image: Stop light Image: Stop light Image: Stop light Image: Stop light Image: Stop light Image: Stop light |
| Auto | Ad Blue |
| ☐ No automatic simulation | |
| | |
| | Hide |

With the vehicle simulation you can change the content of the Bus-FMS-Standard data packages by using the cockpit window.

By clicking on the symbols of Tell Tale Status you can change the status.

3.2.1.2 Internal Logfile

If you choose *Internal Logfile* for the source of Bus-FMS-Standard data packages, an internal Logfile will be used.



3.2.1.3 User Logfile

| Öffnen | | | <u>?</u> × |
|---------------------|---------------------------------------|---------|-----------------|
| <u>S</u> uchen in: | 🔁 LogFile | - 🗧 🛨 (| • |
| StdLog.as | c | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Datei <u>n</u> ame: | StdLog.asc | | Ö <u>f</u> fnen |
| Datei <u>t</u> yp: | *.asc | • | Abbrechen |
| | · · · · · · · · · · · · · · · · · · · | | |

If you choose *User Logfile* for the source of Bus-FMS-Standard data packages, you can choose the filename by pressing the button ______.

3.2.2 Group "Manipulation"

Within the second group of the main window *Manipulation* you can directly manipulate the Bus-FMS-Standard data packages for test purpose.

| Manipulation | |
|--------------------|---------|
| Valid Manipulation | Config |
| | Options |

3.2.2.1 Valid Manipulation

You can change the valid flags for manipulation of the content of the Bus-FMS-Standard data packages within the window *Valid Manipulation*.

By pressing the button <u>voin</u> you can change the valid flags of each data field individually.



| LogiCom - Valid Manipulatio | n - Config | LogiCom - Valid | Manipulation - Config | × | 🔣 LogiCom - Valid Manipulatio | n - Config | |
|-------------------------------------------------------|------------------|----------------------|-----------------------|------------|-------------------------------------|--------------|---|
| Measured Value Name | Range Name | Measured Value Nar | | | Measured Value Name | Range Name | |
| | | Lock Status of Door | 1 Valid Signal | – – | open status or poor 7 | Valid Signal | • |
| Parking Brake Switch | Valid Signal 👻 | Open Status of Door | 1 Valid Signal | - | Enable Status of Door 7 | Valid Signal | • |
| Wheel based speed | Valid Signal 💌 | Enable Status of Do | or 1 Valid Signal | • | Lock Status of Door 8 | Valid Signal | - |
| Clutch switch | Valid Signal 💌 | Lock Status of Door | 2 Valid Signal | • | Open Status of Door 8 | Valid Signal | * |
| Brake switch | Valid Signal 💌 | Open Status of Door | 2 Valid Signal | • | Enable Status of Door 8 | Valid Signal | - |
| Cruise control active | Valid Signal 💌 | Enable Status of Do | or 2 Valid Signal | • | Lock Status of Door 9 | Valid Signal | - |
| Accelerator pedal position | Valid Signal 💌 | Lock Status of Door | 3 Valid Signal | • | Open Status of Door 9 | Valid Signal | • |
| Total fuel used | Valid Signal 💌 | Open Status of Door | 3 Valid Signal | - | Enable Status of Door 9 | Valid Signal | - |
| Fuel level | Valid Signal 💌 | Enable Status of Do | or 3 Valid Signal | - | Lock Status of Door 10 | Valid Signal | - |
| Engine speed | Valid Signal 💌 | Lock Status of Door | | - | Open Status of Door 10 | Valid Signal | - |
| Total engine hours | Valid Signal 💌 | Open Status of Door | 1 | | Enable Status of Door 10 | Valid Signal | - |
| Vehicle identification number | Valid Signal 🔹 | Enable Status of Do | | - | Seconds | Valid Signal | - |
| Requests supported | Valid Signal 🔹 | Lock Status of Door | | - | Minutes | Valid Signal | - |
| Diagnostics supported | Valid Signal 💌 | Open Status of Door | | | Hours | Valid Signal | - |
| W-version supported | Valid Signal 🔹 | Enable Status of Do | 1 | - | Month | Valid Signal | - |
| High resolution total vhcl. distance | Valid Signal 👻 | Lock Status of Door | | | Day | Valid Signal | - |
| Drive recognize | Valid Signal 🔹 | Open Status of Door | , | | Year | Valid Signal | - |
| Driver 1 working state | Valid Signal 🔹 | Enable Status of Do | 1 | | Service Brake Air Pressure Circuit1 | Valid Signal | - |
| Driver 2 working state | Valid Signal 🔹 | Lock Status of Door | Vala orginal | | Service Brake Air Pressure Circuit2 | Valid Signal | - |
| Dverspeed | Valid Signal 🔹 | Open Status of Door | r dia orginal | | Alternator Status 1 | Valid Signal | - |
| Driver 1 card | Valid Signal 👻 | Enable Status of Do | Vala Jigha | - | Alternator Status 2 | Valid Signal | • |
| Driver 1 time rel. state | Valid Signal 👻 | Lock Status of Door | Valu Signal | - | Alternator Status 3 | Valid Signal | |
| Driver 2 card | Valid Signal 💌 | Dinen Status of Door | - Valid Sightar | - | Alternator Status 4 | Valid Signal | • |
| Driver 2 time rel. state | Valid Signal | Enable Status of Do | Valu Signal | • | Selected Gear | Valid Signal | |
| Direction indicator | Valid Signal 👻 | Lock Status of Door | vala orginal | | Current Gear | Valid Signal | - |
| achograph performance | Valid Signal | | Vala orginar | <u> </u> | Below Pressure Front Axle Left | Valid Signal | - |
| Handling information | Valid Signal | Open Status of Door | · Vaid Signal | <u> </u> | Below Pressure Front Axle Right | | - |
| System event | | Enable Status of Do | Valu Signal | • | Below Pressure Rear Axle Left | Valid Signal | • |
| Tachograph vehicle speed | | Lock Status of Door | Valid Signal | - | Below Pressure Rear Axle Right | Valid Signal | - |
| Engine coolant temperature | | Open Status of Door | Value orginal | • | Driver 1 identification | Valid Signal | - |
| Ambient Air Temperatur | | Enable Status of Do | or 10 Valid Signal | - | Driver 1 identification | Valid Signal | - |
| Ambient Air Temperatur Status 2 of Doors | Valid Signal | Seconds | Valid Signal | • | | Valid Signal | • |
| Status 2 of Doors Ramp / Wheel Chair Lift Position | Valid Signal 💌 | Minutes | Valid Signal | - | Fuel Rate | Valid Signal | - |
| Positions of doors | Valid Signal 👻 | Hours | Valid Signal | - | Instantaneous Fuel Economy | Valid Signal | • |
| Positions of dools | Valid Signal 💌 , | Month | Valid Signal | | Tell Tale Status | Valid Signal | + |

3.2.2.2 Options

By pressing the button you can change additional configurations for the generation of the Bus-FMS-Standard data packages.

| 🖌 LogiCom - | Manipulation - Options | | |
|----------------------|-------------------------------------------------------------------|--|--|
| □CAN frame opt | tions | | |
| | | | |
| Source addre | ess (Hex) x00 | | |
| Priority | 6 | | |
| | J. | | |
| _ □ Delivered CAN | l frames | | |
| ×xFEF1 | Cruise Control/Vehicle Speed | | |
| | Electronic Engine Controller #2 | | |
| ✓ xxFEE9 | Fuel Consumption | | |
| | Dash Display | | |
| | Electronic Engine Controller #1 | | |
| | Engine Hours, Revolutions | | |
| | Vehicle Identification | | |
| | FMS-Standard Interface | | |
| | High Resolution Vehicle Distance | | |
| | Tachograph | | |
| | Engine Temperature | | |
| | Ambient Conditions | | |
| | Door Control 1 | | |
| | Door Control 2 | | |
| | Time/Date | | |
| | Air Supply Pressure Alternator Speed | | |
| | Electronic Transmission Controller 2 | | |
| | | | |
| | xxFE58 Air Suspension Control 4 xxFE6B Driver's Identification | | |
| | Fuel Economy | | |
| | Tell Tale Status | | |
| Jes miles / 2 | | | |
| | Apply OK Cancel | | |

You can define data fields in the data packages and switch off individual data packages.



3.2.3 Group "Destination of Bus-FMS-Standard"

In the third group of the main window *Destination of Bus-FMS-Standard* the destination will be chosen. You have the choice between *Data Monitor*, *CAN-Adapter* and/or *Logfile*.

| Destination of FMS-Standard | | | | |
|-----------------------------|---------|--|--|--|
| 🔽 Data Monitor | Monitor | | | |
| CAN-Adapter | Config | | | |
| Logfile | Save | | | |

3.2.3.1 Data Monitor

If you choose *Data Monitor* for the destination of the Bus-FMS-Standard data packages, you can start the data monitor by pressing the button <u>Monitor</u>.

| | | × | 🚺 LogiCom - Data Monitor | × | 11 LogiCom - Data Monitor | × |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Actual Data | | | Actual Data | | Actual Data | |
| Parking Brake Switch | b | - | Driver 1 working state | 0 | Positions of doors | 2 |
| Wheel based speed | 21.901 | | Driver 2 working state | 0 | Lock Status of Door 1 | 0 |
| Clutch switch | 0 | | Overspeed | 0 | Open Status of Door 1 | 0 |
| Brake switch | 0 | | Driver 1 card | 0 | Enable Status of Door 1 | 0 |
| Cruise control active | | | Driver 1 time rel. state | 0 | Lock Status of Door 2 | 0 |
| Accelerator pedal position | 0 | | Driver 2 card | 0 | Open Status of Door 2 | 0 |
| Total fuel used | 17.0 | | Driver 2 time rel. state | 0 | Enable Status of Door 2 | 0 |
| Fuel level | 0.3 | | Direction indicator | 0 | Lock Status of Door 3 | 0 |
| Engine speed | 99.7 | | Tachograph performance | 0 | Open Status of Door 3 | 0 |
| Total engine hours | 1277.623 | | Handling information | 0 | Enable Status of Door 3 | 0 |
| Vehicle identification number | 0.02 | | System event | 0 | Lock Status of Door 4 | 0 |
| Requests supported | Vehicle_ID_00001* | | Tachograph vehicle speed | 20.73 | Open Status of Door 4 | 0 |
| Diagnostics supported | 1 | | Engine coolant temperature | 21 | Enable Status of Door 4 | 0 |
| SW-version supported | 1 | | Ambient Air Temperatur | 22.000 | Lock Status of Door 5 | 0 |
| High resolution total vhcl. distance | 0101 | | Status 2 of Doors | 0 | Open Status of Door 5 | 0 |
| - | 429 | _ | Ramp / Wheel Chair Lift Position | 0 | Enable Status of Door 5 | 0 |
| Drive recognize | 0 | - | | <u> </u> | Last Participante | · |
| | Hide | | | Hide | | Hide |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 🚺 LogiCom - Data Monitor | | × | 12 LogiCom - Data Monitor | × | 1 LogiCom - Data Monitor | × |
| LogiCom - Data Monitor | | × | 11 LogiCom - Data Monitor | × | 1 LogiCom - Data Monitor | × |
| Actual Data | | × | Actual Data | | Actual Data | 1000 |
| Actual Data Lock Status of Door 6 | 0 | | Actual Data Minutes | 20 | Actual Data Service Brake Air Pressure Circuit2 | 1000 |
| Actual Data | 0 | | Actual Data Minutes Hours | 20 | Actual Data Service Brake Air Pressure Circuit2 Alternator Status 1 | 1000 A |
| Actual Data Lock Status of Door 6 Open Status of Door 6 | 0 | | Actual Data Minutes Hours Month | 20 12 12 | Actual Data Service Brake Air Pressure Circuit2 Alternator Status 1 Alternator Status 2 | 1000 0 0 |
| Actual Data Lock Status of Door 6 Open Status of Door 6 Enable Status of Door 6 Lock Status of Door 7 | 0 | | Actual Data Minutes Hours Month Day | 20 12 12 12 12 00 | Actual Data Service Brake Air Pressure Circuit2 Alternator Status 1 Alternator Status 2 Alternator Status 3 | 1000 ▲ 0 0 0 0 |
| Actual Data Lock Status of Door 6 Open Status of Door 6 Enable Status of Door 6 | 0 0 0 0 | | Actual Data Minutes Hous Month Day Year | 20 12 12 12 12 2004 | Actual Data Service Brake Air Pressure Circuit2 Alternator Status 1 Alternator Status 2 Alternator Status 3 Alternator Status 4 | 1000 0 0 0 0 0 0 0 0 |
| Actual Data Lock: Status of Door 6 Open Status of Door 6 Enable Status of Door 6 Lock: Status of Door 7 Open Status of Door 7 | 0 0 0 0 0 | | Actual Data Minutes Hours Month Day | 20 12 12 12 00 2004 1000 | Actual Data Service Brake Air Pressure Circuit2 Alternator Status 1 Alternator Status 2 Alternator Status 3 Alternator Status 4 Selected Gear | 1000 ▲ 1000 0 0 0 0 0 0 0 3 3 |
| Actual Data Lock, Status of Door 6 Open Status of Door 6 Enable Status of Door 6 Lock, Status of Door 7 Open Status of Door 7 Enable Status of Door 7 | 0 0 0 0 0 0 | | Actual Data Mirules Hours Morth Day Year Service Brake Air Pressure Circuit | 20 12 12 12 12 2004 1000 1000 | Actual Data Service Brake Ait Pressure Dicut2 Alternator Stetus 1 Alternator Stetus 2 Alternator Stetus 2 Alternator Stetus 4 Selected Gear Curret Gear | 1000 |
| Actual Data Lock Statur of Door 6 Dpen Statur of Door 6 Enable Statur of Door 7 Lock Statur of Door 7 Open Statur of Door 7 Enable Statur of Door 7 Lock Statur of Door 8 | 0 0 0 0 0 0 0 | | Actual Data Minutes Hours Morth Day Year Service Brake Air Pressure Circuit Service Brake Air Pressure Circuit | 20 12 12 1200 2004 1000 1000 0 | Actual Data Service Brake Air Pressure Circut2 Alternator Status 1 Alternator Status 2 Alternator Status 3 Selected Gear Current Grav Below Pressure Front Axle Left | 1000 0 0 0 0 3 3 400.0 ↓ |
| Actual Data Lock Statur of Door 6 Open Statur of Door 6 Enable Statur of Door 7 Lock Statur of Door 7 Open Statur of Door 7 Enable Statur of Door 7 Lock Statur of Door 7 Open Statur of Door 8 | 0 0 0 0 0 0 0 0 0 | | Actual Data Minutes Hous Month Day Year Service Brake Air Pressure Circuit Service Brake Air Pressure Circuit Alternator Status 1 | 20 12 12 2004 1000 1000 0 0 0 | Actual Data Service Brake Air Pressure Circuit2 Alternator Status 1 Alternator Status 2 Alternator Status 3 Alternator Status 4 Selected Gear Currert Gear Bedow Pressure Front Aide Left Bedow Pressure Front Aide Left | 1000 0 0 0 3 400.0 1000 0 10 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 100 |
| Actual Data Lock Status of Door 6 Open Status of Door 6 Enable Status of Door 7 Lock Status of Door 7 Deen Status of Door 7 Lock Status of Door 8 Open Status of Door 8 Enable Status of Door 8 | 0 0 0 0 0 0 0 0 0 0 | | Actual Data Minutes Hous Day Year Service Brake Air Pressure Circuit Service Brake Air Pressure Circuit Atternator Status 1 Alternator Status 2 | 20 12 12 12 1200 2004 1000 1000 1000 0 0 0 0 0 0 | Actual Data Service Brake Ait Pressure Dircut2 Alternator Status 1 Alternator Status 2 Alternator Status 2 Alternator Status 4 Selected Gave Currer Gave Betwo Pressure Front Ade Left Betwo Pressure Front Ade Left Betwo Pressure Front Ade Left | 1000 0 0 0 0 3 400.0 400.0 400.0 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Actual Data Lock Status of Door 6 Open Status of Door 6 Enneke Status of Door 7 Doen Status of Door 7 Denes Status of Door 7 Enneke Status of Door 8 Doen Status of Door 8 Doen Status of Door 8 Enneke Status of Door 8 Enneke Status of Door 9 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | Actual Data Minutes Hours Morth Day Year Service Brake Air Pressure Circuit Service Brake Air Pressure Circuit Alternator Status 1 Alternator Status 1 Alternator Status 3 | 20 12 12 12 12 12 12 12 12 12 12 | Actual data Service Brake Ait Pressure Circuit2 Alternator Status 1 Alternator Status 2 Alternator Status 3 Alternator Status 4 Selected Gear Duriert Gear Below Pressure Front Avie Left Below Pressure Front Avie Left | I'000 ▲ 0 0 0 0 3 3 400.0 400.0 400.0 400.0 |
| Actual Data Lock Statur of Door 6 Open Statur of Door 6 Enable Statur of Door 7 Lock Statur of Door 7 Open Statur of Door 7 Enable Statur of Door 7 Lock Statur of Door 8 Open Statur of Door 8 Enable Statur of Door 8 Lock Statur of Door 9 Open Statur of Door 9 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | Actual Date Minutes Hours Day Year Service Brake Air Pressure Circuit Service Brake Air Pressure Circuit Service Brake Air Pressure Circuit Alternator Status 1 Alternator Status 2 Alternator Status 2 | 20 ▲ 12 12 12.00 2004 2000 1000 0 0 0 0 0 0 3 4 | Actual Data Service Brake Air Pressure Circut2 Alternator Status 1 Alternator Status 2 Alternator Status 2 Alternator Status 4 Selected Gear Currert Gear Below Pressue Ficet Ade Right Below Pressue Ficet Ade Right Below Pressue Ficet Ade Right Driver 1 identification | 1000 0 0 0 3 3 400.0 400.0 400.0 10 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| Actual Data Lock Status of Door 6 Open Status of Door 6 Enddle Status of Door 7 Lock Status of Door 7 Enddle Status of Door 7 Lock Status of Door 8 Open Status of Door 8 Enddle Status of Door 8 Enddle Status of Door 9 Open Status of Door 9 Dopen Status of Door 9 Enddle Status of Door 9 Enddle Status of Door 9 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | Actual Data Minutes Hous Month Day Year Service Broke Air Pressure Circuit Service Broke Air Pressure Circuit Attennator Status 1 Alternator Status 2 Alternator Status 3 Alternator Status 4 Selected Gear | 20 ▲ 12 1 12 1 1200 1 2004 1 1000 1 1000 1 1000 1 1000 1 1000 1 1000 1 1000 1 1000 1 1000 1 11000 1 12000 1 13 1 | Actual Data Service Brake Air Pressure Dircut2 Alternator Status 1 Alternator Status 2 Alternator Status 2 Alternator Status 4 Selected Gew Currer Gew Below Pressure Front Ade Left Below Pressure Front Ade Left Below Pressure Front Ade Hight Below Pressure Front Ade Hight Delow Pressure Front Ade Hight Delow Pressure Front Ade Hight Divert 1 Identification | 1000 0 0 0 3 3 400.0 400.0 400.0 10 10 10 10 10 10 10 10 10 1 |
| Actual Data Lock Status of Door 6 Open Status of Door 6 Endeb Status of Door 7 Open Status of Door 7 Denes Status of Door 7 Endeb Status of Door 7 Lock Status of Door 8 Denes Status of Door 8 Endeb Status of Door 9 Open Status of Door 9 Open Status of Door 9 Denes Status of Door 9 Denes Status of Door 9 Denes Status of Door 9 Denes Status of Door 9 Endeb Status of Door 9 Endeb Status of Door 9 Endeb Status of Door 9 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | Actual Data Minutes Hours Morth Day Year Service Brake Air Pressure Circuit Service Brake Air Pressure Circuit Alternator Statu Alternator Statu Alternator Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu Statu | 20 12 12 12 12 12 12 12 12 12 12 | Actual Data Service Brake Arl Pressure Circuit2 Alternator Status 1 Alternator Status 2 Alternator Status 3 Alternator Status 4 Selected Gear Duriert Gear Below Pressure Front Avie Left Below Pressure Front Avie Left | Troov Image: mail of the second |
| Actual Data Lock Status of Door 6 Open Status of Door 6 Enable Status of Door 7 Deen Status of Door 7 Enable Status of Door 7 Lock Status of Door 7 Lock Status of Door 8 Open Status of Door 8 Enable Status of Door 8 Doer Status of Door 8 Deen Status of Door 9 Lock Status of Door 9 Enable Status of Door 9 Lock Status of Door 10 Open Status of Door 10 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | Actual Data Minutes Hours Month Day Year Service Brake Air Pressure Encuit Service Brake Air Pressure Encuit Alternator Status 1 Alternator Status 2 Alternator Status 2 Alternator Status 4 Selected Great Eurom Gear Below Pressure Front Ade Left | 20 ▲ 12 1 12.00 2004 1000 1 1000 0 0 0 0 0 3 3 400.0 ↓ | Actual Data Service Brake Air Pressure Circut2 Alternator Status 1 Alternator Status 2 Alternator Status 2 Alternator Status 4 Selected Gear Currer Gear Below Pressure Front Aide Left Below Pressure Front Aide Left Below Pressure Front Aide Left Below Pressure Front Aide Right Driver 1 identification Driver 2 identification Fruit Rate Instantaneous Fuel Economy | 1000 ▲ 0 0 0 0 0 0 3 3 3 400.0 400.0 400.0 0 0 0 0 3 3 3 0 400.0 0 0 0 0 0 0 0 0 0 1000001* 0 0 0 0 0 0 0 10 0 3 109 |
| Actual Data Lock Status of Door 6 Open Status of Door 6 Enable Status of Door 7 Open Status of Door 7 Copen Status of Door 7 Lock Status of Door 7 Doer Status of Door 8 Lock Status of Door 8 Lock Status of Door 9 Open Status of Door 9 Doen Status of Door 9 Enable Status of Door 9 Lock Status of Door 9 Enable Status of Door 10 Den Status of Door 10 Enable Status of Door 10 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | Actual Data Minutes Hous Month Day Year Service Brake Air Pressure Circuit Service Brake Air Pressure Circuit Aitemator Status 1 Aitemator Status 2 Aitemator Status 2 Aitemator Status 3 Atemator Status 4 Selected Gear Current Gear Below Pressure Front Asle Flight | 20 12 12 12 12 12 12 12 12 12 12 | Actual Data Service Brake Arl Pressure Circuit2 Alternator Status 1 Alternator Status 2 Alternator Status 3 Alternator Status 4 Selected Gear Duriert Gear Below Pressure Front Avie Left Below Pressure Front Avie Left | Troov Image: mail of the second |

The data monitor visualises all contents of the Bus-FMS-Standard data packages.



3.2.3.2 CAN-Adapter

| iCom - CAN-A | dapter - Config | × | Lo | giCom - CAN-A | dapter - Config |
|---------------|------------------------------------|---|----|---------------|----------------------|
| AN | | | Г | CAN | |
| CAN Driver | Vector Informatik GmbH (VCANL 3.2) | | | CAN Driver | IXXAT GmbH (VCI 2.0) |
| Card Type | CANcardX 💌 | | | Card Type | USBtoCAN 💌 |
| Card Index | 1 | | | Card Index | 1 |
| Card Channel | 1 | | | Card Channel | 1 |
| 🔽 init access | | | | 🔽 init access | |
| Baudrate | 250000 | | | Baudrate | 500000 |
| sjw | 2 | | | sjw | 1 |
| tseg1 | 8 | | | tseg1 | 8 |
| tseg2 | 7 | | | tseg2 | 7 |
| sam | 1 | | | sam | 1 |
| presc | 2 | | | presc | 1 |
| | | | | | |
| ок | Cancel | | | ок | Cancel |

If you choose *CAN-Adapter* for the destination, you can configure the installed CAN-Adapter cards by pressing the button **Config**.

More information about the configuration of the CAN-Adapter could be found in the product manuals of the manufacturer.

3.2.3.3 Logfile

If you choose *Logfile* for the destination, you can choose a Logfile for the save of the data by pressing the button ______.

| Datei speiche | ern unter | | ? × |
|---------------------|---------------|---|-------------------|
| Spejchern | 😋 LogFile 💽 🗲 | £ | 💣 🎟 • |
| StdLog.as | c | | |
| | | | |
| | | | |
| | | | |
| | | | |
| I | | _ | |
| Datei <u>n</u> ame: | Example | | <u>S</u> peichern |
| Datei <u>t</u> yp: | *.asc | • | Abbrechen |
| | | | /// |



3.2.4 Main group

By pressing the buttons of the main group you can start/stop the generation and the output of the Bus-FMS-Standard data packages. You can also have a look into the program information or close the program.

| Start | Info | Close |
|-------|------|-------|
| Stop | Info | Close |

With the buttons and and you can start/stop the generation and the output of the Bus-FMS-Standard data packages.

With the button you can look into the program information. By pressing the button you can close the program *BusFMSSim* (Bus-FMS-Standard-Simulation).



4 Appendix

4.1 User-Logfiles (ASC-File)

Structure and format

| Description | Length | Position | Remark |
|---------------------------|--------|----------|------------------------------------|
| Timpstamp (Seconds) | 8 | 1-8 | dezimal representation (123.4567) |
| Space | 1 | 9 | 20h |
| CAN-Identifier (Extended) | 8 | 10-17 | hexadezimal representation (29Bit) |
| CAN-Databytes | 16 | 18-33 | hexadezimal representation (64Bit) |
| CR | 1 | 34 | 13h |
| LF | 1 | 35 | 10h |

Example

1 2 3 12345678901234567890123 4 5

| Timestamp (Seconds): | 000.2685 |
|----------------------------|-----------------|
| CAN-Identifier (Extended): | 18F00300 |
| CAN-Databytes: | FFFAFFFFFFFFFFF |



4.2 History of Changes

4.2.1 Version 1.10

- Integration and changing: Frame Door Control 1
- Integration and changing: Frame Door Control 2

4.2.2 Version 1.11

BugFix
Requests Supported and Diagnostics Supported

4.2.3 Version 2.00

- Integration: Frame Driver's Identification
- Integration: Frame Fuel Economy
- Integration: Frame Tell Tale Status
- Correction: Bit position of Door Control 2

4.2.4 Version 2.10

• Integration IXXAT Driver VCI 3 for Windows 7 user

4.2.5 Version 2.11

• Extension of Driver ID 19 Byte