J1939 Source Code

J1939 Software

The J1939 protocol stack was designed to meet the demanding needs of the high speed Controller Area Network (CAN). The J1939 source code uses a high performance modular design and has a simple API. It is written entirely in the C programming language and can be used on any platform with a 8/16/32 bit microcontroller, either with or without an operating system. Benchmarks have shown the stack to be 700% more efficient than other commercially available solutions.

Deliverables

Deliverables include the J1939 protocol stack, well documented source code, a complete user's manual, and examples showing how to send and receive J1939 messages.
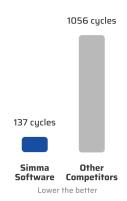
Features

The J1939 source code allows for all of the standard usages of J1939 including:

- Sending and receiving of messages
- Message timeout monitoring
- Message filtering
- Request message processing
- Diagnostic message processing
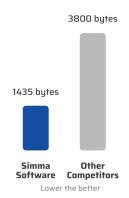- BAM and CM transport protocol processing
- Static and arbitrary address claim

CPU Cycles
per Message

Approx. for C2000 CPU

1056 cycles

137 cycles

Simma Software	Other Competitors

Lower the better

Code Size
Comparison

Approx. for C2000 CPU

3800 bytes

1435 bytes

Simma Software	Other Competitors

Lower the better

Simma Software, Inc. specializes in real-time embedded software for the automotive industry.

Products and services include protocol stacks, bootloaders, device drivers, training, and consultation on the following technologies:

J1939, CAN, J1587, J1708, J2497, J1922, ISO 15765, CANopen, UDS, XCP, LIN.

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