Bootloader software solution: An Overview:

Our Low Memory footprint (both ROM and RAM) bootloader software solution has been successfully integrated in a number of production programs across US, India and Europe.

This time-tested (more than 5 years), stable and ready-to-deploy flash bootloader solution is compatible with application-level protocols like UDS, J1939 and KWP2000.

The reprogramming code sequence is customizable as per the requirements of the target application. It is compatible with both RTOS and non-RTOS based applications.

Flash Bootloader Solution Package:

- QT C++ scripting based application development for windows.
- CAPL + CANoe scripting based tool development.
- Flashing of hex area and CRC check.
- The primary bootloader software module for application reprogramming.
- The secondary bootloader software module for reprogramming of the bootloader sequence.

Features:

- Layered architecture based flash bootloader solution.
- Our proprietary Flash Bootloader software solution is compatible with all popular CPU architectures available in the market.
- Flash Bootloader software development for 8 bits, 16 bits, and 32 bits microcontroller
- Well-structured and well-defined documentations of the bootloader solution

Memory Requirements:

Our Bootloader solution ensures low-memory footprint for both RAM and ROM. Following are the details:

- ROM - 12 to 15 Kb
- RAM - 2 to 3 Kb

Compatibility of Flash Bootloader:

Our flash bootloader solution is compatible with all the widely used vehicle communication protocols:

- UART
- SPI
- CAN
- LIN
- Ethernet
- Bluetooth
- Kline

Flash Bootloader Sequence

- Tester Present
- ECU Reset
- Routine Control
- Request Download
- Transfer Data
- Transfer Exit
- Read Data By ID

UDS Service Provider

Communication Layer
CAN, LIN, UART

FLASH Driver

Bootloader Application Validation
Flash Bootloader consulting, development, testing, and support services:

Following are the key services that we offer:

- Requirement gathering and hardware platform consulting.
- Design and development of customized reprogramming tool.
- Support for tools configuration and testing of standard ECU reprogramming tools like PCAN, Vector, and ValueCAN3.
- Development of end-of-line testing tool.
- Bootloader sequence development as per the customer requirement/ project specification.
- Memory mapping between the Flash Bootloader software and automotive ECU Application
- Integration of the Bootloader with the target application.
- Support for bootloader development based on UDS, J1939, KWP 2000, J1587 protocol stacks or any customer’s proprietary protocol.
- Seed and Key Algorithm implementation for secure and verified access to flash bootloader software.

Get in touch with our Team:

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