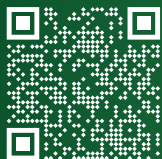




Embedded Software
Expert

Configurable Protocol Stack for Embedded Networks **DUNASTACK**



CONTACT US

+33 (0)9 72 38 37 98
contact@dunasys.com

ENGINEERING OFFICE

18, Villa Blanche
92000 NANTERRE
FRANCE

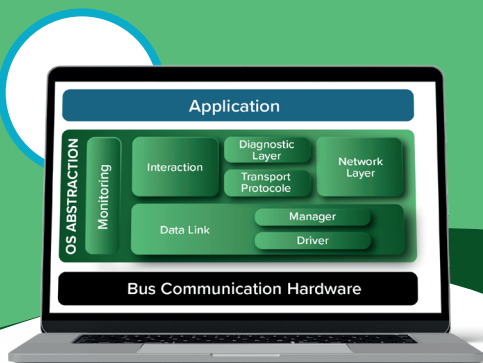
DUNASTACK

Dunastack: Configurable Protocol Stack developed for embedded networks.

The development of Protocol Stacks and Bootloaders based on the **Dunastack** product is the cornerstone of Dunasys know-how in embedded systems.

Drawing on our expertise in CAN, LIN, J1939, MILCAN, CANFD, CANOpen and DoIP networks, our solution fully manages communications, messaging, degraded modes and life phases on embedded networks. It is compatible with all client hardware.

COMPATIBILITY



Customer specifications

Settings

Vehicle database

DBC LBF files

Stack Builder Software

STACK BUILDER

Stack Builder, a Dunasys innovation.

The proprietary **Stack Builder** configuration and assembly tool ensures quick and easy integration of stack developments. This enables customers to adapt their stack to their own needs, and to reuse it on other projects.

Executable

Compiler

Config Sources

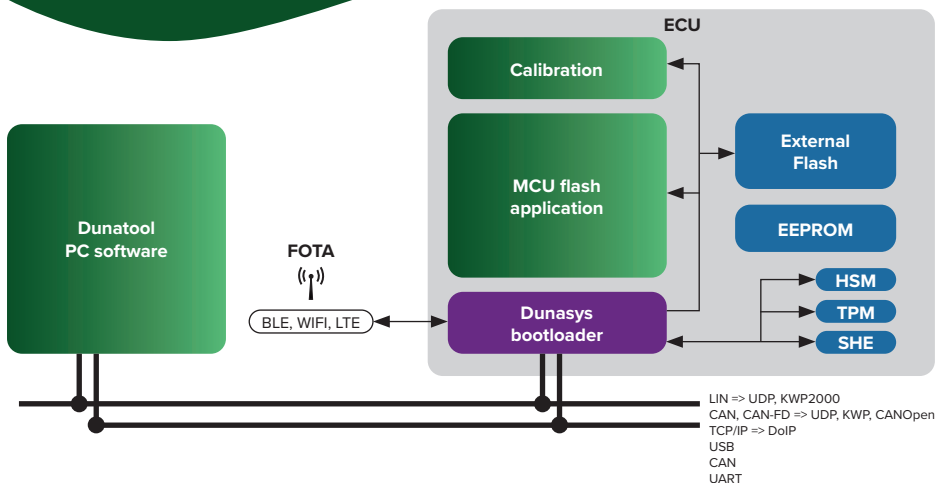
Source Code

Customer App

ECU

FEATURES OF THE DUNASYS BOOT LOADER

- Secure reprogramming zone (application, calibration, specific zone):
 - Authenticity of binary files
 - Checking the integrity of binary files
 - Encrypted download
- Secure storage of cryptographic keys and certificates
 - Activation of keys (fuses)
 - Writing keys
 - Erasing keys
- Secure boot
 - Enabling/disabling startup and application
 - Firmware authentication (fuses)
 - CMAC Authenticity or Hash Integrity Verification before loading and executing the bootloader and application firmware
- Authentication of communications
- Voltage and watchdog monitoring
- ECC error detection
- Client adaptation to memory mapping
- Adaptation of the binary format of the manifest header
- Adaptation of the state machine for downloading sequences
- Saving download history



BUSINESS SECTORS

DUNASYS specializes in embedded software for land, air, rail and sea transport.



DUNASYS customers include major automakers, international Tier 1 equipment suppliers and players in the defense industry.

OUR STRENGTHS

- Compatible with Autosar standard
- OSEK, C-ANSI and MISRA compatible
- Fully configurable with the Stack Builder tool
- Support multi-channel
- Gateway CAN-FD, CAN-CAN and CAN-LIN
- LIN master and slave
- Delivered in C source code
- Bootloader book with tool for downloading and creating files

MICROCONTROLLERS AND OPERATING SYSTEMS

Renesas : RH850, RX, RL78

Freescalar : i.MX, S32, LPC

Infineon : AURIX, XMC

Microchip : PIC24, PIC32, SAM

ST Microelectronics : STM32, SPC5

Adaptable to constrained environments
and different operating systems



QUALITY AND CERTIFICATIONS

DUNASYS develops its products to the highest standards of quality and traceability, in compliance with the various technical specifications or customer standards, while ensuring a time-to-market in line with cost and deadline constraints.



WHY CHOOSE DUNASYS?

DUNASYS is a multi-expertise company (hardware, software) specialized in embedded technologies. With over 15 years' experience, we develop and manufacture customized products and services to meet our customers' needs in the transport and IoT sectors. All our engineers are experts in embedded systems. We provide you with a single point of contact to monitor your project and offer you advice and support.

DUNASYS

HEAD QUARTER: 10 rue de Penthièvre 75008 PARIS
TECHNICAL OFFICE: 18 VILLA BLANCHE 92000 NANTERRE
TEL : +33 (0)9 72 38 37 98 - contact@dunasys.com

LEGAL NOTICE

DUNASYS SASU capital : 1641000 € - RCS PARIS 800754830-SIRET 80075483000035