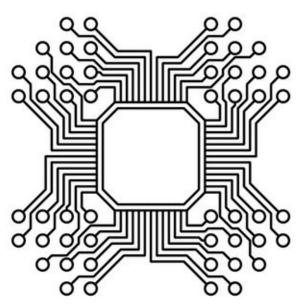# Product brief

ds30 Loader

for use with PIC® microcontrollers

ds30 Loader is a boot loader supporting PIC12, PIC16, PIC18, PIC24, dsPIC®, and PIC32 families of MCUs from Microchip. It supports all devices in each family out of the box, only minor adjustments need to be done in firmware.

ds30 Loader consist of three separate parts:

PIC® firmware, this is the software that resides in the microcontroller

Boot loader engine, this part contains functionality to read hex file and communicate with the firmware. This can also be used to build a 3rd party application.

Client applications, both GUI and console applications are available. These are the frontend to user allowing to easily adjust download settings.

✅ Supports all 8-bit, 16-bit, and 32-bit families

✅ The linker script rarely needs modification

✅ The PC client runs on Windows, Linux, and Mac OS X

✅ Ease of use, the firmware requires no or very small code modifications

✅ Reliability is proved by the usage of ds30 Loader in demanding industries such as automotive, medical and oil.

http://mrmackey.no-ip.org/elektronik/ds30loader/

Firmware features

- Ready to use MPLAB project
- Single firmware per family
- Highly optimized codeSmall size
- Checksum control
- Write verification
- Easy configuration
- Boot loader protection

- Very fast download
- EEPROM write
- Configuration write
- UART operation RS232 / RS485
- CAN operation (not free edition)
- Auto baud rate detection

Boot loader engine features

- Device reset by dtr, rts, or command
- Checks hex-file for code that would overwrite the boot loader
- Checks hex-file for goto at 0x00
- Device activation by dtr or rts

- Auto baud rate
- Tx echo verification

GUI features

- Built-in serial terminal emulator
- Checks for latest version

- Provides detailed hex file analysis

Console

- Useful for scripting downloads

Supported devices

Se separate document: ds30 Loader - supported devices.pdf.
Generally all 8–, 16-, and 32-bit devices supporting RTSP (run time self programming) are supported.

Requirements

PC clients

A .NET framework is required, the following are available

- .NET framework 2.0 x86 (Windows only)
- .NET framework 2.0 x64 (Windows only)
- Mono + Mono-WinForms package

CAN

Not all CAN adapters are supported under Linux and MAC OS X. See the main manual for details.

PIC

- RTSP (run time self programming)
- Some free space, usually 100-300 words depending on family and configuration