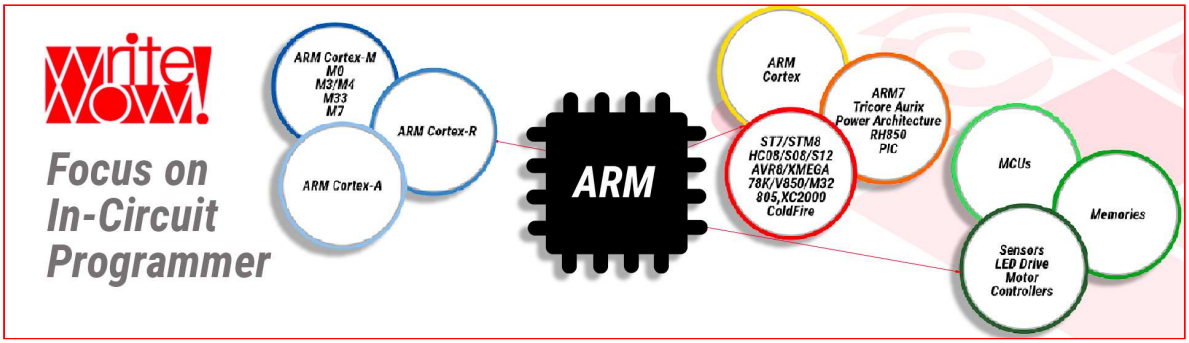
Algocraft®

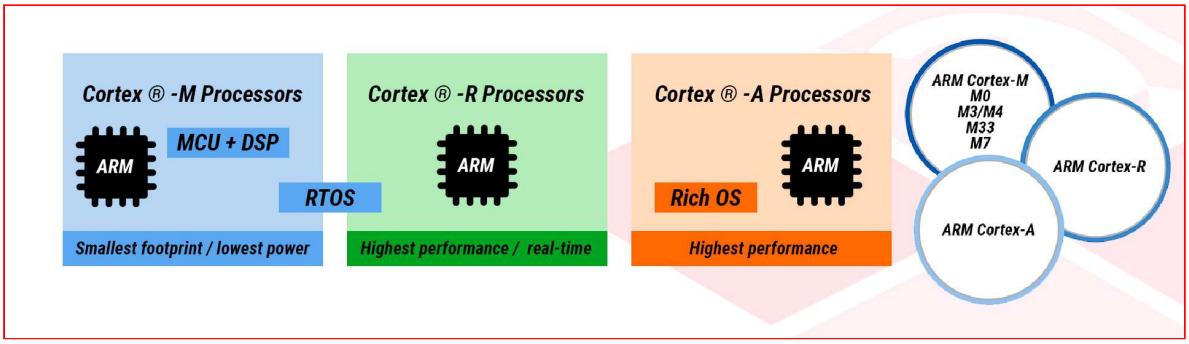
SOLUTIONS FOR THE PROGRAMMING INDUSTRY

The importance of a Universal device library in a programming system



The device library plays a very important role in the choice of a programming system: besides a device list which includes supported and available devices, **Algocraft's technical department** can develop and add new devices upon request.

ARM® CORTEX® Processors across the Embedded Market



It is a matter of fact that most of the embedded applications are based on microcontrollers (MCUs) with 32-bit ARM Cortex Technology. Most silicons' families portfolio integrate different ARM Cortex core, that can be then programmed with specific tools that only have a SWD/JTAG interface.

Next to the ARM world, there's a long series of proprietary CPUs which the different silicons keep promoting and evolving with performances and characteristics required by the market.

Concrete examples can be found with the Infineon 32-bit Tricore™ Aurix™ architecture, with the Automotive Power Architecture™ of NXP/ST, furthermore with the famous PIC™ from Microchip, the automotive microprocessors from Renesas RH850 or the entire DSP series

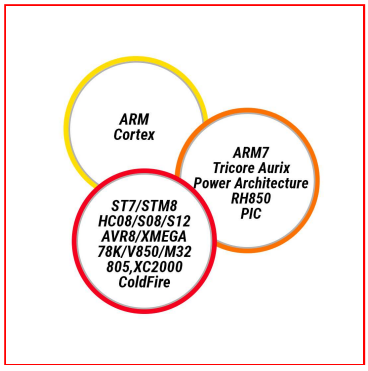
MSP430/TMS320 from Texas Instruments.

It is of extreme importance nowadays, to adopt, in a production environment, a universal programming solution which covers all these families.

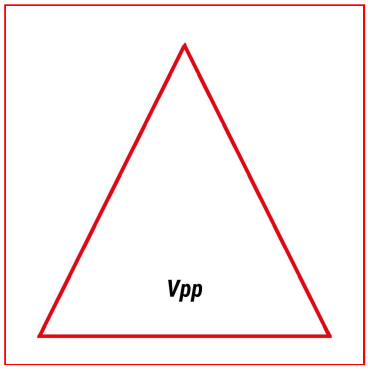
ST7, STM8, HC08, S08/S12, AVR, CY95/CY96, MCF51, MC56000, 8051, XMEGA, CC25, LM3SX, 78K, V850, R32C, XC2000, SuperH, UPSD, ST10…

There are other MCUs on which billions and billions of applications are still based. Most frequently these MCUs are 8-bit/16-bit architectures, based on dedicated protocols which need flexible programming solutions.

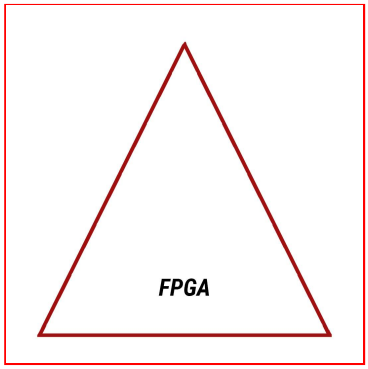
Here's an example: ST7, STM8, HC08, S08, AVR, CY96, MCF51, S12, MC56000, 8051, XMEGA, CC25, LM3SX, 78K, V850, R32C, XC2000, SuperH, UPSD are CPU whose electronics' board producers (EMS) need to program and are usually obliged to use dedicated programming tools because their programming systems were not designed to support specific protocols (MON08, SWIM, BDM, PDI, C2, SDI, ICC, ISSP etc) or because the programmer's producer doesn't support the programming algorithm.



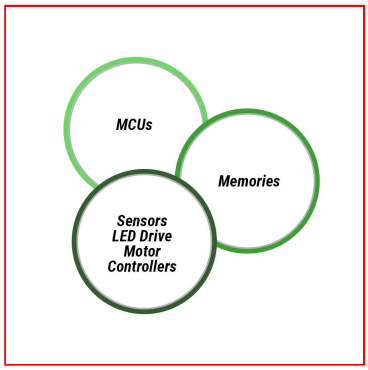
Algocraft and its programming platform **WriteNow!** supports with same instrument the silicon's proprietary CPU but mostly guarantees the support of families that were introduced in the market many years ago and need a specific know-how for the programming.



WriteNow! integrates for instance an I/O programmable exit 0-15V which can be used to supply a Vpp signal (voltage programming) necessary for some devices.



Thanks to its structure based on FPGA, any programming protocol, even custom, can be configured in run-time assuring in this way the timing of the protocol- without software overhead.



Another characteristic of the **WriteNow!** programming platform is the possibility to program in parallel, not only microcontrollers (MCUs) and memories, but also programmable devices like Hall sensor ICs, LED drivers, Power Management ICs, Motor Controller Driver ICs, Sensors, System on Chip (SoC), etc.

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*Adopting a universal and flexible platform like **WriteNow!** in a production environment, provides a strength point to the user company to compete in the global market of the electronic boards' production, with fast and punctual solutions, cutting the hidden engineering costs.*

If you need any further information about
WriteNow! Technology feel free to contact us!

Algocraft Srl
info@algocraft.com

By: Pietro Poletto (pietro.poletto@algocraft.com)