

L2 Technical Support for IDE CM-LYNX



ORGANIZATION:

JSC ICC Milandr
milandr.com



INDUSTRY:

Embedded software, IDE

Problem Statement:

From the beginning of our partnership with the customer, the most challenging issues on their end were related to their self-developed integrated development environment (IDE) for MCU products. CM-LYNX IDE was not popular among developers inside or outside the company. Milandr decided to reverse the situation and increase demand for IDE by providing a quality product and addressing the needs of the MCU developer.

SOLUTION:

We studied several possible solutions to find the one would yield optimal results. We provided two-level technical support for the product. L1 Technical Support consists of the customer's operators, L2 Technical Support – of our experts, experienced developers who can provide the most suitable and tactically smart solutions that enhance the performance of IDE CM-LYNX products. Our first step was to analyze the situation and identify weak points in the IDE. We analyzed and prioritized the bugs that the customer's QA service and product users had identified.

Within a one-year time frame, we studied and improved all the IDE components: assembler, linker, debugger, SDK components, and so on. When the bugs were fixed, we initiated product features enhancement; thanks to which the product can now match, and in some areas even surpass, VisualDSP IDE, its top competitor. The main tasks included:

- bug-fixes,
- replacement of AngioScan compiler with Clang compiler (LLVM framework),
- implementation of Clang compiler's Char8 mode,
- optimization of Clang compiler,
- adaptation of DSPLib library,
- implementation of Clang compiler advanced commands,
- adjustment of libraries in compliance with C99 standard,
- implementation of MACS RTOS as a standard delivery pack piece.

In addition, our project documentation gave us a complete set of user and developer documentation, which contributed to product reliability. The document set is continually updated by both companies.

RESULT

JSC ICC Milandr and **Grovety** successfully implemented the product; the solution is still being expanded and refined to meet the customer's needs:

- Over 300 bugs of varying complexity were fixed,
- Compiler was optimized, which brought the code in the Assembler closer to the levels that developers write,
- Product reliability and security has improved,
- IDE quality and speed characteristics have increased.

Milandr developers got an up-to-date high-tech product that can match VisualDSP.

The customer's clients got fast, high quality technical support, an expandable product, and the ability to implement new solutions.

TOOLS & TECHNOLOGIES:

C/C++; Eclipse IDE; Java; Clang; LLVM; ASM; Linker; Debugger; C99.



grovety.com



sales@grovety.com