MIKROE
Time-saving embedded tools

RA Ecosystem Partner Solution

MIKROE NECTO Studio IDE

Solution Summary

NECTO Studio is a lightning-fast, multi-architecture, multi-language IDE developed in C++ for Windows, macOS, and Linux. It integrates GCC(GNU Compiler Collection) and Clang for Renesas RA Family MCUs unified under the mikroSDK's universal codebase. With daily-updated libraries, thousands of ready-to-use examples across hundreds of embedded topics, and 24/7 access to a remote board farm, NECTO Studio shortens the time from the idea in your head to the project on your desk. NECTO's built-in AI code assistant smartly merges multiple codebases, while the Smart Cloud brings real-time data visualization to your desk with a single line of code.

Features/Benefits

- Built-in GUI development with NECTO Designer and LVGL, including auto-code generation
- All-in-one integrated tools (bootloaders, terminals, converters, and more) minimize the need for external software
- mikroSDK – unified software development kit for embedded engineers, which allows you to write code once and run it anywhere
- Built-in code assistant provides instant suggestions and guidance to make coding fast
- Dual-core support enables advanced multitasking and performance optimization
- Optional Click boards enables rapid, expansion of sensor and communication capabilities.

Diagrams/Graphics
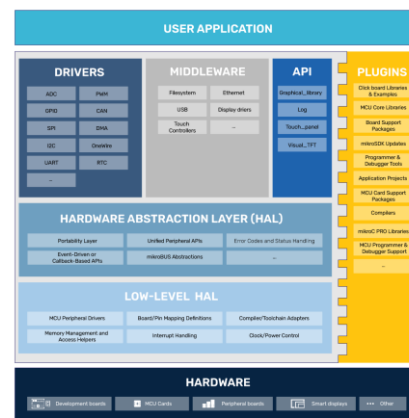
Target Markets and Applications

- Industrial control systems
- Medical technology and wearables
- Smart metering

- Internet of Things (IoT) devices
- Home automation and smart devices
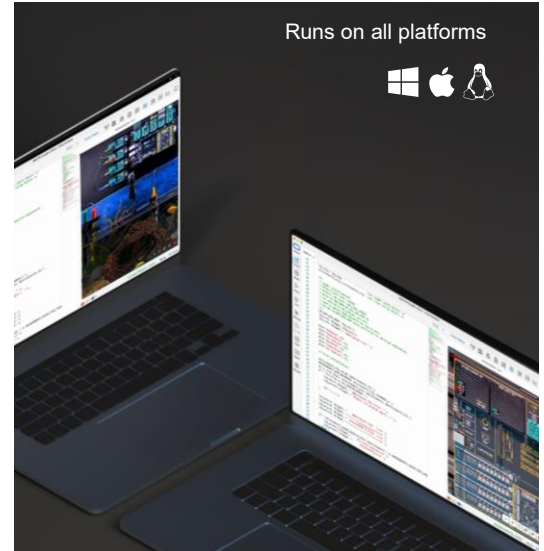- Industrial control systems

www.mikroe.com/necto

The only development environment you'll ever need

MULTI-ARCHITECTURE, MULTI-LANGUAGE IDE WITH THE BEST UX

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- **Start quickly with predefined project types -** fully hardware-agnostic thanks to smart Setup (Project Configuration) handling
- **Define setup once and reuse multiple times**: Intuitive smart setup steps guiding you from start to finish. Once you have defined the setup, you can use it to build and run one or more projects, with just one click
- **Daily Update: Fresh libraries & examples each day** - Package Manager enables you to easily integrate libraries, board definitions, examples, and everything else into NECTO Studio projects, Daily updates: fresh support for peripheral boards, MCUs, boards, complex projects
- **Build great GUIs with NECTO Designer & LVGL** - Drag & drop from a library of pre-made components, fine-tune every element, customize screen orientation, layout, and background for each UI segment
- **Write your code once – deploy anywhere** - mikroSDK makes application code portable and reusable on many different architectures, with no code changes
- **Fetch your data with one line of code** - Display sensor data, variable values, or any serial output with just one line of code
- **NECTO AI Code Assistant** instantly helps you fix, explain, and document code while providing context-aware hardware guidance directly inside the editor.
- **Visual AI Code Prompt** generates complete, hardware-ready embedded code and templates with up to 99% accuracy, turning your ideas into working projects in minutes.
- **Planet Debug (Remote Board Farm)** - NECTO Studio gives you direct access to real development boards - hosted in remote board farm. Built on the world's first Wi-Fi-enabled programmer/debugger – CODEGRIP, Planet Debug enables secure, driver-free connections via Wi-Fi
- [**Click board**](#) - Compact add-on boards utilizing Renesas ICs, sensors, and interface chips. Designed with our mikroBUS™ standard, they are ideal for quick evaluation and prototyping with Renesas technology.

ABOUT MIKROE

MIKROE is committed to changing the embedded electronics industry through the use of time-saving industry-standard hardware and software solutions. With unique concepts like Remote Access, One New Product/Day, Multi-Architectural IDE and most recently, the EmbeddedWiki™ platform with more than million ready-for-use projects, MIKROE combines its dev boards, compilers, smart displays, programmers/debuggers and 1850+ Click peripheral boards to dramatically cut development time. mikroBUS™; mikroSDK™; SiBRAIN™ and DISCON™ are open standards and mikroBUS only has been adopted by over 100 leading microcontroller companies and integrated on their development boards.