The MCUXpresso IDE enables powerful application development for NXP MCUs based on ARM® Cortex®-M cores, including LPC and Kinetis microcontrollers, and i.MX RT crossover processors. The MCUXpresso IDE offers advanced editing, compiling and debugging features with the addition of MCU-specific debugging views, code trace and profiling, multicore debugging, and more.

- Feature-rich IDE with integrated MCUXpresso config tools (pins, clocks, peripherals) for ease-of-use
- Based on industry standard Eclipse and GCC providing a powerful application development environment
- Supports Freedom, Tower, LPCXpresso, i.MX RT and your custom development boards with debug probes from NXP, P&E, and SEGGER
- Fully featured, no code size limits, with many MCU specific enhancements

The MCUXpresso IDE is part of the cohesive suite of MCUXpresso Software and Tools, and is inherently compatible with MCUXpresso Software Development Kit (SDK) and the MCUXpresso Config Tools.

Designed to ease and accelerate embedded system development and optimization, the MCUXpresso Software and Tools bring high quality comprehensive enablement to NXP’s Powerhouse Portfolio of microcontrollers built on ARM Cortex-M cores. A shared software environment enables easy migration and scalability between Kinetis, LPC and i.MX RT product portfolios.
FEATURES

- A free-of-charge, code size unlimited IDE for Kinetis and LPC MCUs and i.MX RT crossover processors
- Based on extensible and feature rich Eclipse IDE with specific enhancements to simplify MCU application development and debugging
- Industry-standard GNU toolchain with a choice of libraries: ARM newlib C/C++ library, ARM newlib-nano library, and optimized small footprint NXP RedLib library.
- Single installation image with on-demand SDK and device support files
- SDK Wizard to create and clone projects
- Editor awareness functionality for linker map files, linker scripts and linker script templates, providing syntax coloring as well as navigation of file contents
- Combined support for LPCOpen and Kinetis SDK v2
- Support for Cortex-M33 secure / non-secure projects
- Drag & Drop importing of projects and MCUXpresso SDK packages
- Integrated configuration tools for easy editing of pins, clocks and peripherals
- Support for CMSIS-DAP debug probes, including NXP’s LPC-Link2, P&E Micro and SEGGER
- SWO trace for NXP’s LPC-Link2, P&E (recent probes) and SEGGER debug connections
- ‘Faults’ View to analyze Cortex-M CPU’s fault registers and stack backtrace
- Instruction trace views supported when debugging via CMSIS-DAP, P&E Micro and SEGGER debug probes (for target MCUs with MTB or ETB hardware)
- Image Info view gives a breakdown analysis of a project build, including overall memory usage, content of memory regions and static call graph (including stack usage information)
- Heap and Stack Usage view provides ability to track heap and stack usage during the debug of bare-metal projects
- Advanced views for SWO Trace, profiling, data watching and peripheral viewing, supported when debugging using LPC-Link2, P&E* and SEGGER probes (for target MCUs with SWO support)
- FreeRTOS Task Aware Debugger (TAD) functionality now directly implemented within the IDE
- GUI Flash Programming Tool, Peripheral Register View, Global Variables View, Textual/Graphical Live Variable View, Project Wizards, and many more

- Extendible with thousands of Eclipse plug-ins
- Advanced views for instruction trace, SWO Trace, profiling, data watching and peripheral viewing
- Supported host operating systems:
  - Microsoft® Windows® 7/8/10 (64 bit only)
  - Ubuntu Linux® 16.04 LTS and 18.04 LTS (64 bit only)
  - Mac OS X 10.11 and later
* Only specific versions of P&E Micro probes. Check with P&E Micro for more details

GET STARTED:

Learn more: www.nxp.com/mcuxpresso/ide
Join the MCUXpresso IDE community: https://community.nxp.com/community/mcuxpresso/mcuxpresso-ide
Professional Support & Services: www.nxp.com/services

www.nxp.com/mcuxpresso/ide

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