NXP LPCXpresso

Low-cost development platform for 32-bit LPC microcontroller family

This new, low-cost development tool platform, available directly from NXP, provides a quick way to develop advanced, low-power applications using NXP's highly efficient and low-power LPC microcontrollers. It includes everything to take end users from evaluation to final production.

LPCXpresso features

‣ Low-cost development tool platform for LPC MCUs
‣ Eclipse-based IDE
‣ Low-cost target board
‣ Integrated JTAG debugger (separate debug probe not required)
‣ End-to-end solution supports evaluation to production

NXP's low-cost LPCXpresso development tool platform includes an Eclipse-based IDE, an optimized GNU toolchain, and a low-cost target board that features a JTAG debugger. It is an end-to-end solution that makes it easy to develop innovative, low-power applications – from initial evaluation to final production. It is a complete, no-fuss, front-to-back toolchain, ready to run with a single simple install.

LPCXpresso IDE

The LPCXpresso IDE, powered by Code Red (www.code-red-tech.com), is based on the popular Eclipse development platform and includes several LPC-specific enhancements. It is an industry-standard GNU toolchain with an optimized C library that gives engineers all the tools necessary to develop high-quality software solutions quickly and cost-effectively.

The C programming environment includes professional-level features at a low cost. There is syntax coloring, source formatting, function folding, on- and offline help, and extensive project management automation.

The LPCXpresso IDE interface

founded by Philips
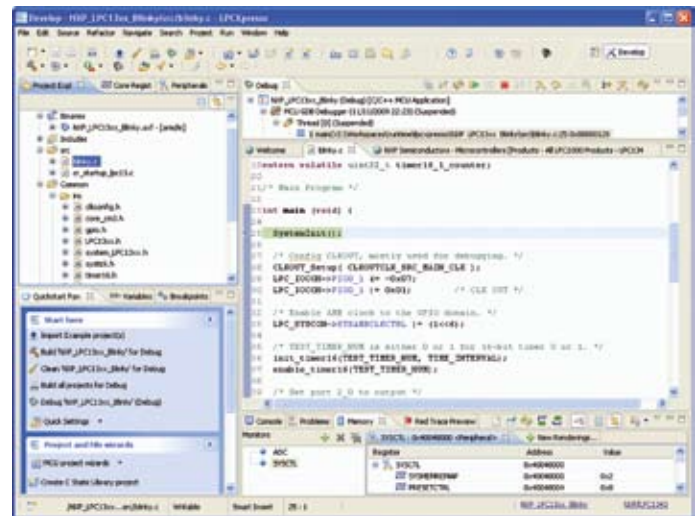
NXP's proprietary user interface simplifies the IDE for 8/16-bit users. It provides a single perspective view to enable a better user experience. Example projects help start development, and wizards simplify the task of microcontroller programming. Automatic linker script generation includes support for microcontroller memory maps, and the environment can provide direct automatic downloads to flash during debug. The built-in datasheet browser provides fast access to all the relevant chip information.

Peripheral window
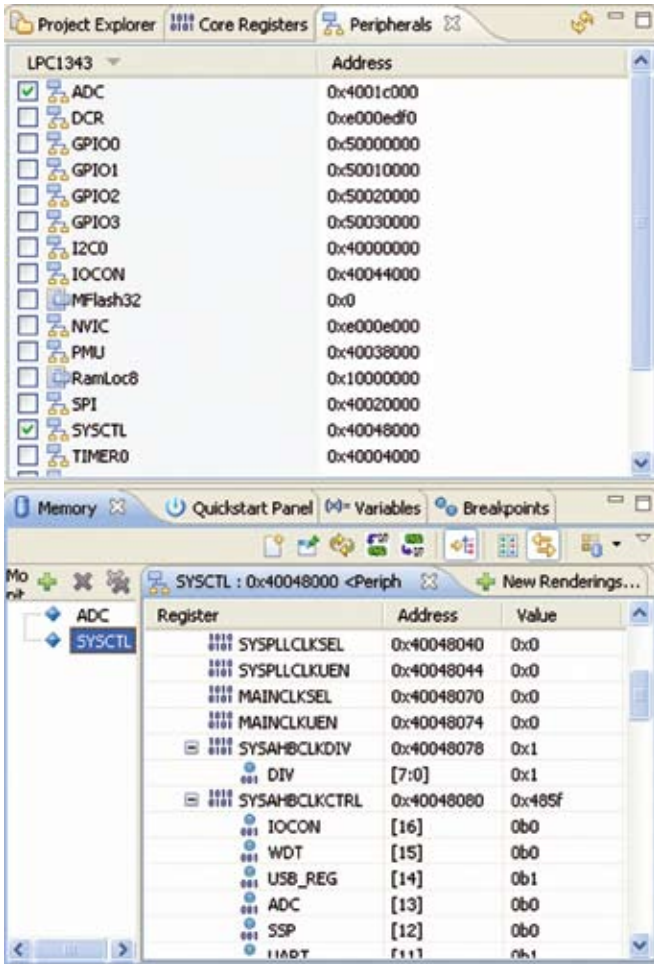
The peripheral viewer provides complete visibility of all register and bit fields in the target peripherals, showing them in an easy-to-read, tree-structured display. The powerful processor-register viewer gives access to all processor registers and provides smart formatting for complex components such as flags and status registers.

Target board
The LPCXpresso target board, jointly developed by NXP, Code Red, and Embedded Artists (www.embeddedartists.com), includes an integrated JTAG debugger (LPC-Link), so there's no need for a separate emulator.

LPC-Link JTAG/SWD debugger
The LPC-Link JTAG debugger brings exceptional value to the LPCXpresso tool since it can also be used with other LPC evaluation boards. That means engineers can use the same tools with other boards, including custom boards used in final production. LPC-Link provides the high-speed USB interface to the LPCXpresso IDE and is currently supported by the LPC3154.

LPC-Link JTAG/SWD debugger

LPCXpresso partners
For added design flexibility, the LPCXpresso toolchain can easily be upgraded to include full-blown suites from Code Red and more advanced hardware kits from Embedded Artists.

Supported LPC microcontrollers
The LPCXpresso platform supports all Cortex-M0 and Cortex-M3 devices in the LPC1000 family. It also includes support for specific devices in the LPC2000 and LPC3000 families.

www.nxp.com/lpcxpresso