J-Link Flash Breakpoints are available for free for use with ARM microcontrollers

SEGGER Microcontroller and NXP Semiconductors agreed to provide J-Link's Flash Breakpoint option for free to NXP LPC1000 Cortex-M, LPC2000 ARM7 and ARM9 MCUs users.

The Flash Breakpoints can be used with GDB, IAR, KEIL and any RDI-compliant debugger. This option allows the user to set an unlimited number of breakpoints in the device internal flash memory. Debugging limitations given by the number of hardware breakpoints (2 on ARM7/9, 4 on Cortex-M0 and typically 6 on Cortex- M3) are completely removed.

The J-Link uses a RAM code which is specifically designed for the purpose of setting and removing breakpoints in flash. The software uses a mix of hardware and software breakpoints to optimize the number of memory write operations. A cache for the flash contents minimizes the time needed for a write operation when setting or removing a breakpoint. With the addition of instruction set simulation the actual memory access operations are reduced significantly. This presents a flash debugging environment which is virtually the same as that when debugging in RAM.

“Flash breakpoints significantly improve the debugging experience for any developer on flash based microcontrollers by adding
unlimited breakpoints. With instruction set simulation we offer a solution unrivaled in the market to speed up the execution of the debugged code and increase the lifetime of flash memory,” says Dirk Akemann, marketing manager of SEGGER. "NXP is pleased to partner with Segger to offer this free innovative Flash Breakpoint option to our customers," said Geoff Lees, Vice President and General Manager, Microcontroller Product Line, NXP Semiconductors.

The software can be downloaded from http://www.segger.com/download_jlink.html. More information on Flash Breakpoints including a brand new demonstration video can be found at http://www.segger.com/cms/j-link-arm-flash-breakpoints.html [1].

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