SEGGER introduces reentrant CRC library

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SEGGER Microcontroller now offers emLib CRC, a CRC (Cyclic Redundancy Check) library that handles all general polynomials up to 32 bits wide, in normal and bit-reversed form. In addition to the general CRC functions, emLib CRC features optimized implementations for popular CRC polynomials including CRC-CCITT, CRC-16, and CRC-32.

The performance of the optimized routines is close to the theoretical limit and comparable to hardware-accelerated algorithms. In contrast to hardware-based solutions emLib CRC is fully reentrant and therefore thread-safe.

emLib CRC does not require porting at all, is delivered as pure C source code and is easily integrated into PC programs and embedded targets as well as apps for portable devices such as Android or iOS tablets and phones.

CRCs are used to provide error detection on data transfers in digital networks and data held on storage devices or computed over firmware images. CRCs help insure the integrity of data transmission by identifying errors in the data stream, which might be caused by noise or other corruption of bits, with very little computational overhead. Typical applications in the embedded area are MMC or SD Cards, Ethernet or Bluetooth connections.

Like all SEGGER middleware emLib CRC is free of viral licensing. Using the emLib CRC library together with SEGGER's other Middleware products ensures smooth integration of the various components.

More information on emLib CRC is available at: www.segger.com/emlib-crc.html

About emLib

SEGGER emLib is a collection of complex, hardware independent algorithms. These algorithms are free from third party licenses and can be used on any processor from 8- to 64-bit. The software can also be used in PCs or portable devices. The code follows strict and efficient coding standards resulting in an easy to use code, which is optimized for lowest resource usage and highest performance.

Full product specifications are available at: www.segger.com/emLib.html

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About SEGGER

SEGGER Microcontroller develops and distributes hardware and software development tools as well as software components for embedded systems. An "embedded system" is one in which a microprocessor and associated components are incorporated into a device helping to accomplish difficult and complex tasks in products such as cell phones, medical instruments, instrument clusters, measurement instruments, satellite radios, digital cameras etc.

SEGGER was founded in 1997, is privately held, and is growing steadily. Based in Hilden with distributors in all continents and a local office in Massachusetts, SEGGER offers its full product range worldwide.

SEGGER software products include: embOS (RTOS), emWin (GUI), emFile (File System), emUSB (USB host and device stack) and embOS/IP (TCP/IP stack). With emSecure, a unique software to generate and verify digital signatures, and the TLS-solution emSSL, SEGGER is also offering software for the growing field of data and product security.

With the experience in programming efficiently on embedded systems, SEGGER created highly integrated, cost-effective programming and development tools, such as the Flasher (stand-alone flash programmer) and the industry leading J-Link/J-Trace emulator.

SEGGER cuts software development time for embedded applications by offering affordable, high quality, flexible and easy-to-use tools and software components allowing developers to focus on their applications. Find out more at www.segger.com.

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