## Encryption Now Available for the SEGGER emFile File System

Hilden, Germany - August 31st, 2012 – SEGGER introduces encryption for its popular emFile embedded file system. This add-on provides an easy way to encrypt storage media either in its entirety, or on an individual file basis. The encryption layer may be used with both available file systems FAT and SEGGER's EFS (Embedded File System), as well as on all supported storage types, such as NAND, NOR, SD-cards, MMC cards, CompactFlash cards, etc.

Only minor changes to the application program are required in order to enable encryption. The configuration consists of assigning the encryption method and a password. The rest of the application is not affected. A PC side application is available for the encryption and decryption of files to prepare data for the embedded application or to read out encrypted information collected by the embedded application. Encryption/Decryption can be done at high speed: On a 100MHz Cortex-M target, a speed of approximately 500KByte/sec is achieved. Higher speeds can be achieved with hardware encryption or a faster processor.
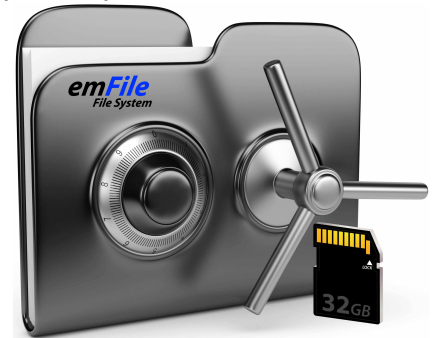
The developer has the option to choose between different encryption algorithms. DES, 3DES and AES are available from SEGGER. The entire emFile code has been developed by SEGGER from scratch, no part of it falls under GPL licensing.

"emFile encryption adds a very easy way for customers to provide security for the data used in their applications", says Dirk Akemann, Marketing Manager of SEGGER.

About emFile

SEGGER's emFile is a highly efficient file system optimized for resource usage and performance. Two versions are available, one for FAT-file systems and another for EFS, a proprietary file system which allows the use of long file names without royalties.

emFile's driver level is fail-safe by design, removing the risk of corrupted data. To add fail-safety to the upper file-system, a highly efficient journaling option is available for both EFS and FAT.

All popular flash media are supported by emFile. Removable media such as SD-Cards, MMC, and CompactFlash are supported, as well as, internal flash memories like NOR, NAND, and data flashes. The drivers for the internal flash memories include sophisticated wear leveling algorithms. The wear leveling also takes into account that files may be modified at different frequencies.

Full product specifications are available at: http://www.segger.com/emFile.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 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's intention is to cut 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 http://www.segger.com.

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