

## SEGGER's emFile now supports large databases in embedded systems

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**SEGGER announces [emFile](#) support for large databases with the integration of SQLite for use with SEGGER's BigFAT and Microsoft's exFAT®.**

SEGGER's [BigFAT](#) is a specification defining how to store large (> 4GB) files. emFile with the BigFAT add-on can be used on any FAT-formatted drive and can handle files of virtually any size. Regular FAT systems see big files as multiple files, which they can read, write, and copy.

[exFAT® for emFile](#) is a specialized implementation of the exFAT file system tailored for embedded systems. For those who want or need an exFAT implementation for emFile, a direct Microsoft license is available through SEGGER.



SQLite is a C-language library that implements a small, fast, self-contained, high-reliability, full-featured, SQL database engine.

“At SEGGER, we listen carefully to our customers and respond to specific requests and requirements as the need arises,” says Dirk Akemann, Head of Technical Marketing at SEGGER. “Customers have been very successfully using SQLite with BigFAT prompting us to formally integrate SQLite into emFile. Plus, having a small footprint and stable file format, as well as being cross-platform, SQLite is a perfect match for SEGGER and emFile. The source code is public domain, and thus free, with professional support also available. We are happy to be enhancing emFile with SQLite for use with BigFAT and exFAT®.”

Designed with security in mind, all emFile access operations are atomic, meaning even a power failure or system crash leaves neither storage nor data in an undefined state so there is no data loss.

[emFile Journaling](#) is an additional component which sits on top of the file system and makes the file system layer fail-safe. Journaling means that a file system logs all changes to a journal before committing them to the main file system ensuring the consistency of the file system. RAID modes 1 and 5 can also be supported to increase safety at the storage layer, while journaling increases safety at the file system layer. emFile is optimized for minimum memory consumption in RAM and ROM, for high speed, and for versatility.

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## About emFile

[emFile](#) is a fail-safe file system library that enables an embedded application or system to store data securely and reliably on any kind of storage device.

The library is the result of more than 28 years of continuous and ongoing development. It is deployed in billions of devices worldwide, making it a proven file system for the embedded industry. Written in portable C, emFile is hardware-agnostic and can run on most 8-bit targets and on any 16/32/64-bit target.

SEGGER offers ready-to-use device drivers for SD/SDHC/SDXC/MMC cards, eMMC storage devices, and USB flash drives. Drivers for NAND and NOR flashes with high performance wear levelling are available as well.

## About SEGGER

Founded in 1992, SEGGER Microcontroller GmbH has over three decades of experience in embedded systems, producing cutting-edge [RTOS and software libraries](#), J-Link and J-Trace [debug and trace probes](#), a line of [Flasher in-system programmers](#), and [software development tools](#).

SEGGER's all-in-one solution [emPower OS](#) provides an RTOS and a complete spectrum of software libraries for, among other things, communication, security, data compression and storage, user-interface software, and more. emPower OS gives developers a head start, allowing them to benefit from decades of experience in the embedded industry.

SEGGER's professional embedded-development software and tools are simple in design, optimized for embedded systems, and support the entire embedded-system development process with their affordability, high-quality, flexibility, and ease of use.

SEGGER, with headquarters in Monheim am Rhein, Germany, also has an office in Boston, Massachusetts, United States, and branch operations in Silicon Valley, California, United States; Shanghai, China; and the United Kingdom. With distributors on most continents, SEGGER's full product range is available worldwide.

For more information on SEGGER, please visit [www.segger.com](http://www.segger.com).

## Why SEGGER?

In short, SEGGER has a full set of tools for embedded systems, offers support throughout the entire development process, and has decades of experience. We are The Embedded Experts.

Furthermore, SEGGER software is not covered by an open-source or attribution license, and it can be integrated into any commercial or proprietary product—with no obligation to disclose the combined source. SEGGER offers stability in an often volatile industry, making it a highly reliable partner for long-term relationships.

For additional information, please visit [www.segger.com](http://www.segger.com).



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