

# Spansion® Flash File System: Smart Solutions for Design and Development

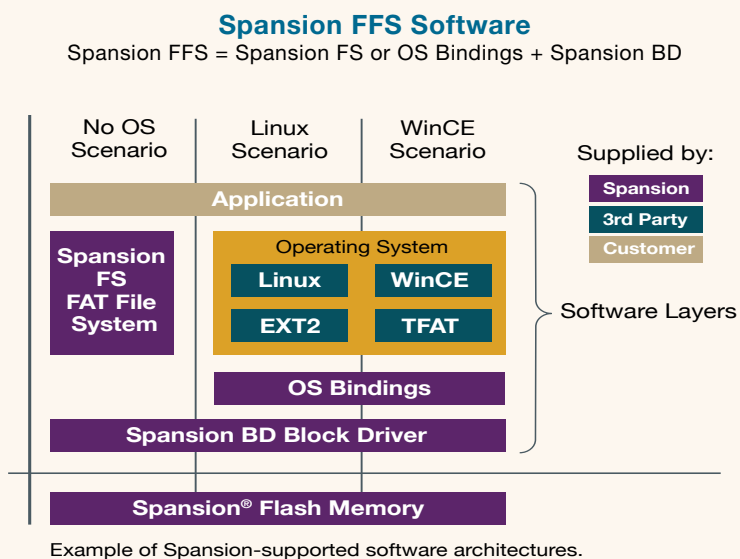
**Today's designers are faced with the ongoing challenge of creating more complex designs in less time without sacrificing performance or increasing costs. Let us help you accelerate your designs with the Spansion® Flash File System (FFS) software.**

The Spansion FFS software is customized to support both parallel and serial Flash memories. This flexible software solution is designed to help you rapidly create a full-featured data storage subsystem where the universal interface of the block driver isolates the command interface of the Flash memory from your software application. Coupled with memory from your board design, you have a complete Flash solution to manage your changing design needs that can leverage the complete Spansion roadmap, now and into the future.

## The Spansion FFS software offers many benefits, including:

- Easy to license and procure
  - The click-thru license enables easy evaluation and acceptance
  - The package is available at no cost to Spansion customers
  - Receive full source code, user guide and porting guide
- Flexible system integration options
  - Spansion File System (FS) - a standalone FAT File System,
  - OS Bindings - pre-integrated for Linux and Windows CE, and
  - Spansion Block Driver (BD) - a block driver for serial and parallel interface Flash memories

- Pre-tested under continuous and discontinuous power scenarios to minimize your risk
- Tunable for your system requirements
- Free support from our worldwide network of Application Engineering Specialists!



## Spanion BD and Low Level Driver: Core Components for Data Storage

At the heart of the Spanion FFS package is the Spanion BD and Low Level Driver. The Spanion BD contains all of the specialized core logic that maps a Flash device to a logical disk device:

- The BD maps logical blocks to physical blocks for you, automatically managing dirty space cleanup, wear leveling, and power failure recovery.

The Low Level Driver contains all of the device-specific logic that manages Flash command presentation and Flash status:

- The Serial Low Level Driver (SLLD) supports the full range of Spanion serial peripheral interface Flash, providing the industry's first FFS for Serial Interface devices!
- The Low Level Driver (LLD) supports Spanion parallel interface Flash, through the older polling interface, or the newer status register interface; and the LLD enables multiple board layouts, supporting both cascaded and interleaved layouts for various data bus widths.

## Modular Design Lowers Your Development Costs and Gets You to Market Faster

The Spanion BD is easily integrated into multiple application and OS environments when combined with one of the three integration interfaces:

1. Spanion FS delivers standalone FAT16 and FAT32 support
2. Pre-integrated OS Binding for Linux
3. Pre-integrated OS Binding for Windows CE

### Where:

- Spanion FS is useful if your system has no disk file system, or if you want to integrate your application directly with Spanion FS.

- The OS Bindings enable rapid integration of Spanion BD into your OS – preserving the OS-supplied data storage abstraction that requires no changes to your application layer.

## High Quality Minimizes Risk to Your Product

Whether you're dealing with high-reliability automotive requirements, or a pressured time-to-market consumer device platform, you want only the best solutions that deliver high quality with minimal risk for you and your customers. Our rigorous and repeatable quality assurance program addresses:

- **Continuous Power Testing:** Our automated test processes exercise a broad range of valid and invalid inputs, as well as long-term random operation tests – all repeated for multiple build configurations – so you can be assured of correct operation under normal conditions.
- **Discontinuous Power Testing:** Our best-in-class automated and focused power failure stress test enables bug discovery rates that are orders of magnitude faster than normal unfocused methods – so you can be assured that when the power turns on, your Flash disk will mount and your committed data will be preserved.

## Easy AND Free!

Spanion FFS is available free to Spanion customers.

Register now through our online form. Log onto [www.spanion.com/support](http://www.spanion.com/support) and select "Solutions Support" from the left navigation. Complete the "Ask Spanion Web Form" and submit. Or you may choose to contact Spanion Solutions support at (408) 616-2003. Our worldwide customer response team will provide you with a secure portal to download the full source code. They can also provide technical support. After accepting the easy click-thru license, you will be on your way to enjoying the benefits Spanion FFS has to offer.

Learn more about Spanion solutions and support at:

**[www.spanion.com/support](http://www.spanion.com/support)**

### ABOUT SPANION

Spanion's (NYSE: CODE) Flash memory technology is at the heart of electronics systems, powering everything from the internet of today to the smart grid of tomorrow, positively impacting people's daily lives at work and play. Spanion's broad Flash memory product portfolio, smart innovation and industry leading service and support are enabling customers to achieve greater efficiency and success in their target markets.

For more information, visit <http://www.spanion.com>

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