

Overview

HCC-Embedded is the foremost vendor of storage and communication solutions for embedded systems. The company's suite of file systems covers the entire range of embedded applications, from the smallest to the largest. With HCC-Embedded, one size does NOT fit all; developers can choose a file system that's right for their applications.



All of HCC's products are designed and tested to the highest standards, in order to maximize performance, reliability and portability. HCC-Embedded, as an independent company that serves the entire embedded community, has paid special attention to portability issues. With HCC products, it's possible to use virtually any RTOS, or a home-brew operating system, or a non-RTOS operating system, or no operating system at all.

To support this approach, and for other compelling reasons, all HCC-Embedded products are distributed in full source form.

In addition to HCC's software product business, the company provides software and system design and development services for both hardware and software, from concept through to low volume production. Our team of experienced development engineers is always available and we take pride in helping customers to achieve real results, by getting reliable products to market rapidly and cost-effectively.

Product Portfolio

HCC's range of products designed for embedded applications includes:

- Full USB OTG stack with support for many USB controllers
- Set of File systems designed for use on a range of embedded applications
- Safe flash translation layer for NAND flash
- Set of fail-safe boot-loaders for reliable firmware upgrade
- Embedded system development and integration

The back page of this brochure shows our embedded products and their possible inter-connectivity.

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Integration with Other Vendors and Firmware

All HCC firmware products are developed with integration in mind. An RTOS abstraction layer is included with each HCC product. It can be used as the default RTOS, and is easily ported to all RTOSes of which we are aware. We have integrated our products with more than 10 different RTOSes from a wide variety of vendors, and for an even wider variety of targets. HCC's USB and file system products have been integrated into the product lines of about 8 of the top 20 embedded RTOS companies.

This wide usage of our code in different environments adds to the stability and maturity of the end-products.

Licensing Model

HCC's firmware is sold with full source code and comprehensive user documentation. The flexible license model is based on the product for which the firmware is used and includes no royalties. For copies of our license agreements please contact sales@hcc-embedded.com.

Quality and Testing

HCC creates products of the highest quality, in order to ensure the success of its customers. We aim to make the development process as clear-cut as possible by writing straightforward, high-quality code with easy-to-understand documentation.

Our engineers perform rigorous and extensive tests on all our file systems, USB stacks and other software, using a broad variety of development tool chains and runtime platforms. Every file system is shipped with a comprehensive test suite and in some cases with additional test suites to exercise drivers. HCC has also developed its own internal test suites for thoroughly verifying USB drivers (particularly for testing error conditions that are difficult to create in normal usage) and a complete simulation environment for SafeFTL, SafeFLASH, SafeFAT, FAT and TINY.

We have created a collection of hardware reference designs. These are used for checking product portability and also to provide the hardware design information that's required to make the design process as easy as possible. This has the added benefit of immediate compatibility with the sample drivers we provide.

All our code is compiled on multiple compilers (typically around 10), with highest warning levels, to ensure the quality of the code.

Customer Case Study



The Bones Inc. Milestone 312 handheld aid for the visually impaired (featured on the cover page), based around the Freescale i.mx233 processor, was developed in cooperation with HCC's development team – the schematic and complex layout were done by our hardware developers, much of the base board support package was developed by HCC and the product incorporates many HCC products including USB OTG stacks, and file systems. Bones then focused on their expertise – the neat design of the unit and the highly

sophisticated user interface software, which give the user such a comfortable experience when handling all this technology.

Development Services

HCC has a wealth of design and development experience in the embedded systems field. Our product development know-how is particularly broad and deep in the file storage and communication domains. Our experience and skills are available to our customers through HCC's services group, which can help to accelerate product development and thus reduce associated costs and time-to-market.

We supply both hardware and software development services, from design through to implementation, for a broad range of embedded systems and products. We're particularly adept at marginalizing the difficulties that often occur in connection with hardware interfaces, drivers, file systems, communication systems and toolchains.

HCC has built test boards and firmware for 8-bit to 32-bit CPUs, and with a variety of USB interfaces and flash media including NAND, NOR, and CF cards in a number of development environments.

Support/Maintenance

With every HCC license, we provide technical support and maintenance for one year. At the option of the licensee, this may be extended for one year or more.

HCC's technical support and maintenance is provided by its technical staff. HCC does not have a distinct support group - support is provided by the people who developed the products.

Silicon Partners

Analog Devices



Development Tool Partners



Rowley



EMBEDDED FIRMWARE ARCHITECTURE

