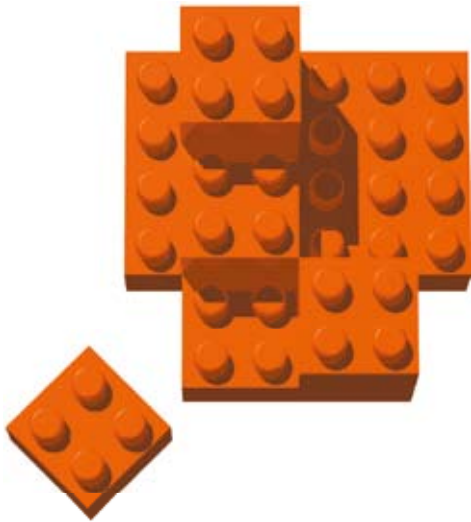


# AVE-File™ v1.1



AVE-File is a file system for embedded applications that enables dedicated equipment such as fax machines, printers and other OA equipment, digital cameras, portable music players, car audios, automatic vending machines and telephones to store data and/or exchange data with PCs. It supports FAT12/16/32 and VFAT, and can handle hierarchical directories. The AVE-PLIM platform interface module eliminates dependence on specific CPUs or OS, making it very easy to port to a variety of user environments. Development time is greatly reduced because logical file system modules and physical storage device driver modules can be developed on PC/Windows machines. AVE-File is implemented as a stand alone module as well as optional modules to other ACCESS ComponentWare, such as  $\mu$ More  $\mu$ TRON4.0-compliant real-time OS, NetFront/Compact NetFront browser, JV-Lite2 Java virtual machine, and AVE-HTTPD Web server, etc.

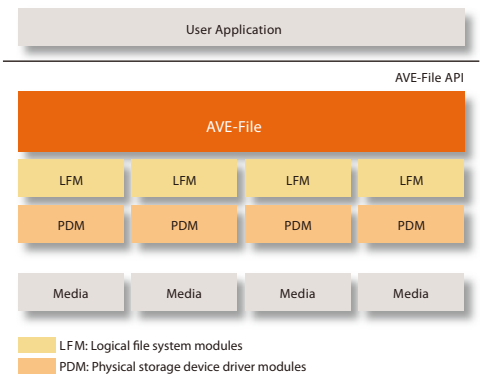
## Functions and Features

- Complete source code provided royalty-free.
- Supports FAT12/16/32, VFAT (supports long file names), and DOS partitions.
- Users can develop logical file system modules and physical storage device driver modules.
- AVE-PLIM platform interface module provides excellent portability.
- Supports  $\mu$ TRON.  
(supports  $\mu$ More  $\mu$ TRON4.0-compliant real-time OS)
- Applications, logical file system modules and physical storage device driver modules can be developed on the Win32 environment.
- Compact size: ROM 30KB, RAM 20KB (without SH-3 and VFAT)
- Designed for stability in around-the-clock continuous operation environments.
- Supports multi-tasking:  
No need for OS in single-task applications.
- Configurable file system building
- FAT file system checking function
- Logical file system/media information acquisition function.
- Sample physical storage device drivers:  
CompactFlash · ATA disks,  
Windows NT 4.0/2000 disks
- Sample logical file systems:  
ROM-based simulated file system,  
Win32 file system
- Command interpreter bundled for confirming operations
- Operation guaranteed on Hitachi SH-3 Solution Engine (MS7709ASE01) / $\mu$ More v4.0 and Win32 environments

## AVE-File SDK Development Kit

The AVE-File SDK is a porting package that offers full source code and includes a PC-based application development environment, a wide range of sample drivers, a test program and documentation. Guaranteed operation using the Hitachi SH-3 Solution Engine (MS7709ASE01) under the  $\mu$ More v4.0 and Windows NT 4.0/2000 environments facilitates porting to different platforms and devices. Development work can be started before the hardware is available because applications developed on a PC using VC++ can easily be recompiled to run on the target platform.

## AVE-File v1.1 Modular Configuration





File system for embedded applications

# AVE-File™ v1.1 SDK

## AVE-File v1.1 Package



Applications development and evaluation on the PC

### Demo Package

- Executable command interpreter module for confirming AVE-File operations. (for Windows NT4.0/2000/98)
- Batch file for command interpreter execution
- Sample disk image file
- Documentation
- Distributed free of charge

Porting and development kit

### SDK Source Package

- AVE-File kernel (source)
- ACCESS FAT Filesystem Module (AFFM) (source)
- AVE-PLIM (source)
- μMore v4.0 module for AVE-File evaluation (object)
- Sample programs (source)
  - Sample programs for confirming functions (Command interpreter, CGI program for AVE-HTTPD, FAT file system check program)
- Sample drivers (source)
  - Physical storage device driver (PDM)
    - ATA device driver (ATA\_pdm)
    - Simulated disk driver for Win32 (Win32Pdm)
  - Sample PC card enabler (APC\_card)
  - Logical file system modules (LFM)
    - ROM-based simulated file system (ROMfs)
    - Simulated file system for Windows (Win32fs)
- Sample programs for SH-3, MS7709ASE01 (source) (System initialization, SCIF/RTC driver, user monitor for CSIDE95)
- Documentation
- Unlimited copy license for limited model types
- Three-month free user support
- Shrink-wrap contract

\*Reference boards and development environments are not included in the kit.

## AVE-File v1.1 Operating Environment



Operation-guaranteed hardware	Windows PC, MS7709ASE01
Operation-guaranteed OS	Windows NT4.0/2000/98, μMore v4.0
Operation-guaranteed development environments	VC++6.0, Hitachi HEW1.1a, Computex ROMICE64 + CSIDE95
Module size	RAM 20KB/ROM 30KB (without SH-3 and VFAT)
Operation-confirmed media	CompactFlash (SanDisk 64MB, MegaData 48MB, IBM microdrive 340MB), SmartMedia (TDK 16MB), ATA hard disk (IBM DARA-21200 12GB), Windows NT4.0/2000 hard disks, floppy disks

Use of the OS provided (μMore v4.0, HI7700) is only allowed for running the AVE-File SDK program on the evaluation board. Development or mass-production licenses for the OS itself require separate licensing agreements with ACCESS or the manufacturer concerned.

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