µC/FS™ File System for CrossCore® Embedded Studio version 2.6.0 Release Notes

Contents

1 µC/FS™ File System for CrossCore® Embedded Studio version 2.6.0 Release Notes

1.1 Introduction

This document contains the release notes for µC/FS™ File System for CrossCore® Embedded Studio version 2.6.0. It describes the release in detail and provides latest information that supplements the main documentation.

Users of previous releases should check the "Version Compatibility" section for pertinent instructions on modifying existing applications for this new release.

1.2 Support and Assistance

There are several options for contacting support:

- Submit your questions online at http://www.analog.com/support
- E-mail your Processor and DSP software and development tools questions from within CrossCore Embedded Studio.

Go to "Help->E-mail Support…". This will create a new e-mail addressed to processor.tools.support@analog.com, and will automatically attach your CrossCore Embedded Studio version information (ProductInfo.html).

- E-mail your Processors and DSP applications and processor questions to:
    - processor.support@analog.com OR
    - processor.china@analog.com (Greater China support)
- Post your questions in the Processors and DSP online technical support community in Engineer Zone at http://ez.analog.com/community/dsp

1.3 Update Highlights

No source updates since 2.4.0.

1.4 Known Issues

See µC/FS™ File System for CrossCore® Embedded Studio version 2.6.0 Release Notes.

1.5 Version Compatibility

µC/FS™ File System requires CrossCore® Embedded Studio version 2.6.0 or later for all processors. Once a project is upgraded to work with CCES version 2.6.0 its format will be changed and may no longer build if it is opened with older versions of the toolchain.

Further, the examples released in this product have been created with CrossCore® Embedded Studio version 2.6.0 which means that trying to build the examples with previous versions of CCES will result in build problems.

µC/FS™ File System version 2.6.0 requires requires µC/LIB version 2.1.0 or later.This is the version of µC/LIB included with this product.

2 µC/FS™ File System for CrossCore® Embedded Studio version 2.4.0 Release Notes

2.1 Introduction

This document contains the release notes for µC/FS™ File System for CrossCore® Embedded Studio version 2.4.0. It describes the release in detail and provides latest information that supplements the main documentation.

Users of previous releases should check the "Version Compatibility" section for pertinent instructions on modifying existing applications for this new release.

2.2 Support and Assistance

There are several options for contacting support:

- Submit your questions online at http://www.analog.com/support
- E-mail your Processor and DSP software and development tools questions from within CrossCore Embedded Studio.

Go to "Help->E-mail Support…". This will create a new e-mail addressed to processor.tools.support@analog.com, and will automatically attach your CrossCore Embedded Studio version information (ProductInfo.html).

- E-mail your Processors and DSP applications and processor questions to:
  - processor.support@analog.com OR
  - processor.china@analog.com (Greater China support)
- Post your questions in the Processors and DSP online technical support community in Engineer Zone at http://ez.analog.com/community/dsp

2.3 Update Highlights

The focus of µC/FS™ File System for CCES version 2.4.0 is to support the release of the ADSP-SC57x processor family which includes support for the ARM Cortex-A5 core. µC/FS™ File System for CCES does not support the SHARC core.

2.4 New supported Processors

µC/FS™ File System for CrossCore® Embedded Studio 2.4.0 supports all the processors supported by µC/FS™ 2.0.0. The newly supported processors are:

- ADSP-SC570, ADSP-SC571 , ADSP-SC572, ADSP-SC573
    - Devices supported: RAM Disk, SD Card, USB Mass Storage

2.5 Known Issues

µC/FS™ File System for CrossCore® Embedded Studio no longer supports operation with the µC/OS ROM image on ADSP-BF70x processors.
To use µC/FS with the µC/OS please use the µC/OS product installed in RAM.

The example "SD Card example using uC/FS (ADSP-SC573)" will fail to run properly on ADSP-SC573 EZ-Kits with a BOM revision of 1.2 or less. (The BOM revision can be found on the underside of the board.)

3 µC/FS™ File System for CrossCore® Embedded Studio version 2.0.0 Release Notes

3.1 Introduction

This document contains the release notes for µC/FS™ File System for CrossCore® Embedded Studio version 2.0.0. It describes the release in detail and provides latest information that supplements the main documentation.

Users of previous releases should check the "Version Compatibility" section for pertinent instructions on modifying existing applications for this new release.

3.2 Support and Assistance

There are several options for contacting support:

- Submit your questions online at http://www.analog.com/support
- E-mail your Processor and DSP software and development tools questions from within CrossCore Embedded Studio.

Go to "Help->E-mail Support…". This will create a new e-mail addressed to processor. tools.support@analog.com, and will automatically attach your CrossCore Embedded Studio version information (ProductInfo.html).

- E-mail your Processors and DSP applications and processor questions to:
    - processor.support@analog.com OR
    - processor.china@analog.com (Greater China support)
- Post your questions in the Processors and DSP online technical support community in Engineer Zone at http://ez.analog.com/community/dsp

3.3 Update Highlights

The focus of µC/FS™ File System for CCES version 2.0.0 is to support the release of the ADSP-SC58x processor family which includes support for the ARM Cortex-A5 core. µC /FS™ File System for CCES does not support the SHARC core.

The version of the Micrium's file system included with µC/FS™ File System for CCES version 2.0.0 has been upgraded to v4.07.00.

Micrium's file system documentation has migrated to their website at address http://doc.micrium.com instead of being included with µC/FS™ File System for CrossCore® Embedded Studio. Any documentation specific to Analog Devices processors can still be found within this product.

3.4 New supported Processors

µC/FS™ File System for CrossCore® Embedded Studio 2.0.0 supports all the processors supported by µC/FS™ 1.1.0. The newly supported processors are:

- ADSP-SC582, ADSP-SC584 , ADSP-SC587, ADSP-SC589
  - Devices supported: RAM Disk, SD Card, USB Mass Storage

3.5 Micrium software versions

µC/FS™ File System for CrossCore® Embedded Studio version 2.0.0 is based on Micrium's µC/FS™ File System version 4.07.00

There are several CrossCore Embedded Studio add-ins based on Micrium's products which share common add-ins. To ensure that the same version of these add-ins is used by all the add-ins that require them, these add-ins are installed in a common location which is distinct from the µC/OS-FS install folder. These common add-ins are

- µC/CPU which is installed in %COMMONPROGRAMFILES%\Analog Devices\uC-CPU v2.0.0. This installation includes µC/CPU version 1.30.01.

- µC/LIB which is installed in %COMMONPROGRAMFILES%\Analog Devices\uC-LIB v2.0.0. This installation includes µC/LIB version 1.38.00. This is the minimum version of µC/LIB required to build µC/FS 4.07.00. Version 1.38.00 of µC/LIB has deprecated some APIs that were used by previous versions of µC/FS, most notably `Mem_PoolBlkGetUsedAtIx()` and `Mem_PoolBlkIxGet()`. Updating to µC/FS V4.07.00 is required if updating other Micrium products that require µC/LIB V1.38.00.

- µC/CLK which is installed in %COMMONPROGRAMFILES%\Analog Devices\uC-CLK v2.0.0. This installation includes µC/CLK version 3.09.03

3.6 Version Compatibility

µC/FS™ File System requires CrossCore® Embedded Studio version 2.0.0 or later for all processors. Once a project is upgraded to work with CCES version 2.0.0 its format will be changed and may no longer build if it is opened with older versions of the toolchain.

Further, the examples released in this product have been created with CrossCore® Embedded Studio version 2.0.0 which means that trying to build the examples with previous versions of CCES will result in build problems.

µC/FS™ File System version 2.0.0 requires requires µC/LIB version 2.0.0 or later.This is the version of µC/LIB included with this product.

3.7 µC/FS™ File System for CrossCore ® Embedded Studio Software Anomalies

This section enumerates the most significant anomalies which relate to µC/FS™ File System for CrossCore® Embedded Studio. For a comprehensive list of all the public software anomalies visit http://www.analog.com/SoftwareAnomalies

3.8 Anomalies fixed in version 2.0.0

3.8.1 Known issues with µC/FS™ File System for CrossCore® Embedded Studio 2.0.0

These are the currently known problems which affect µC/FS™ File System for CrossCore® Embedded Studio.

4 uC/FS™ File System for CrossCore® Embedded Studio version 1.1.0 Release Notes

4.1 Introduction

This document contains the release notes for µC/FS™ File System for CrossCore® Embedded Studio version 1.1.0. It describes the release in detail and provides latest information that supplements the main documentation.

Users of previous releases should check the "Version Compatibility" section for pertinent instructions on modifying existing applications for this new release.

4.2 Support and Assistance

There are several options for contacting support:

- Submit your questions online at http://www.analog.com/support
- E-mail your Processor and DSP software and development tools questions from within CrossCore Embedded Studio.

Go to "Help->E-mail Support…". This will create a new e-mail addressed to processor.tools.support@analog.com, and will automatically attach your CrossCore Embedded Studio version information (ProductInfo.html).

- E-mail your Processors and DSP applications and processor questions to:
  - processor.support@analog.com OR
  - processor.china@analog.com (Greater China support)
- Post your questions in the Processors and DSP online technical support community in Engineer Zone at http://ez.analog.com/community/dsp

4.3 Update Highlights

The focus of µC/FS™ File System for CCES version 1.1.0 is to support the release of ADSP-BF70x processor family.

The version of the Micriµm's file system included with µC/FS™ File System for CCES version 1.1.0 has been upgraded to v4.07.00.

Micriμm's file system documentation has migrated to their website at address http://doc. micrium.com instead of being included with μC/FS™ File System for CrossCore® Embedded Studio. Any documentation specific to Analog Devices processors can still be found within this product.

4.4 New supported Processors

μC/FS™ File System for CrossCore® Embedded Studio 1.1.0 supports all the processors supported by μC/FS™ 1.0.2. The newly supported processors are:

- ADSP-BF700, ADSP-BF701, ADSP-BF702, ADSP-BF703, ADSP-BF704, ADSP-BF705, ADSP-BF706, ADSP-BF707

    - Devices supported: RAM Disk, SD Card, USB Mass Storage

4.5 New add-ins to support ADSP-BF707 ROM

ADSP-BF70x processors include a Utility ROM which contains the μC/OS-III Real-Time Kernel and μC/LIB and μC/CPU which are required by μC/OS-III. To support the utility ROM, μC/FS includes new add-ins that do not add μC/LIB and μC/CPU to the project.To use μC/FS in a project with μC/OS-III in ROM, you must choose the ROM-specific μC/FS add-ins. If you have uC-CPU from uC-FS (i.e non-ROM uCFS) and the uCOS3 ROM then you will get double definitions and link errors.

Further, using the μC/FS components to support the μC/OS-III ROM configurations without a μC/OS-III ROM add-in results in compilation failures since the μC/LIB and μC /CPU headers and sources are not in the project.

4.6 Micriμm software versions

μC/FS™ File System for CrossCore® Embedded Studio version 1.1.0 is based on Micriμm's μC/FS™ File System version 4.07.00

There are several CrossCore Embedded Studio add-ins based on Micriμm's products which share common add-ins. To ensure that the same version of these add-ins is used by all the add-ins that require them, these add-ins are installed in a common location which is distinct from the μC/OS-FS install folder. These common add-ins are

- μC/CPU which is installed in %COMMONPROGRAMFILES%\Analog Devices\uC-CPU v1.1.0. This installation includes μC/CPU version 1.30.01.

- µC/LIB which is installed in %COMMONPROGRAMFILES%\Analog Devices\uC-LIB v1.1.0. This installation includes µC/LIB version 1.38.00. This is the minimum version of µC/LIB required to build µC/FS 4.07.00. Version 1.38.00 of µC/LIB has deprecated some APIs that were used by previous versions of µC/FS, most notably `Mem_PoolBlkGetUsedAtIx()` and `Mem_PoolBlkIxGet()`. Updating to µC/FS V4.07.00 is required if updating other Micrium products that require µC/LIB V1.38.00.

- µC/CLK which is installed in %COMMONPROGRAMFILES%\Analog Devices\uC-CLK v1.1.0. This installation includes µC/CLK version 3.09.03

4.7 Version Compatibility

µC/FS™ File System requires CrossCore® Embedded Studio version 1.1.0 or later for all processors. µC/FS™ File System version 1.1.0 requires requires µC/LIB version 1.1.0 or later. This is the version of µC/LIB included with this product.

µC/FS ™ File System for CrossCore ® Embedded Studio Software Anomalies

This section enumerates the most significant anomalies which relate to µC/FS™ File System for CrossCore® Embedded Studio. For a comprehensive list of all the public software anomalies visit http://www.analog.com/SoftwareAnomalies

4.7.1 Anomalies fixed in version 1.1.0

Anomalies fixed by the Micriµm upgrade to version 4.07.00

- SD Driver: issue STOP_TRANSMISSION command only once per stop operation.
- Missing err code init in FSDev_Access(Lock|Unlock).
- Mounting logical partition fails if extended partition type is LBA extended (0xF).
- NAND Driver: incorrect data size allocation for Micron ECC and Soft ECC.
- FS_FAT_JournalOpen(): erroneous journal file's cluster count calculation when the journal size is smaller than the cluster size.
- NAND Driver errors in 16 bits defect mark checking.
- NAND Driver: add support for switching to 16 bits width

4.7.2 Known issues with µC/FS™ File System for CrossCore® Embedded Studio 1.1.0

These are the currently known problems which affect C/FS™ File System for CrossCore® Embedded Studio.

UCFS-217 Upgrading the file system add-in to 1.1.0 results in warnings

CCES produces some unexpected warnings when upgrading the uC-FS component to 1.1.0.

The following warnings can be ignored safely and the resulting project should build without issues.
Property "uccpu-ucfs-compatibility" required by Add-in "..." doesn't exist
Property "uclib-ucfs-compatibility" required by Add-in "..." doesn't exist