

Re: TFAT stability

Source:

<http://www.tech-archive.net/Archive/WindowsCE/microsoft.public.windowsce.platbuilder/2005-07/msg00257.html>

- *From:* Marco Contenti <marco.contenti@xxxxxxxxxx>
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turnsek ha scritto:

So you think there is no solution to stabilize the filesystem?

Not necessarily: it depends on how Microsoft implemented FAL. Unfortunately there is no source code or documentation on that. If the 5.0 implementation is ok, as Chris Tacke was told by MS, it's just a matter of replacing a few files in the WINCE420 tree, i.e.:
PUBLIC\COMMON\OAK\LIB\\$_CPUINDPATH\fal.*
This doesn't even require a build of 5.0, just install an evaluation copy and get the files.

Regards.

Marco

"Marco Contenti" wrote:

The problem is rather simple: if you look at how the msflash block driver is implemented, you can see that disk-like 512-byte sectors are mapped plain linearly to flash memory. Well, what if you must write a sector in a flash block already in use? You need to back up data somewhere, erase the 128k block (which can take 1 second) and restore the modified block content. All this is done in the FAL (Flash Abstraction Layer), which is not documented. Are we sure that FAL can recover, say, if power fails in the middle of a block erase?

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Note: TFAT knows nothing of flash blocks. It does safe transactions with 512-byte sectors. Using a CF card leaves the task of virtualizing 512-byte sectors out of a flash array to the microcontroller firmware inside the card, which is supposed to be heavily tested.

Regards.

Marco Contenti
PROJECT s.a.s. (WEP)
www.projectsas.it
marco.contenti@<see domain above>

turnsek ha scritto:

Thanks for the reply.

The problem is we don't have the WinCE5.0