

# Re: TFAT stability

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*Source:*

<http://www.tech-archive.net/Archive/WindowsCE/microsoft.public.windowsce.platbuilder/2005-07/msg00122.html>

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- *From:* "turnsek" <[turnsek@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:turnsek@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Wed, 6 Jul 2005 05:02:01 -0700
- 

Thanks for the reply.

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

We have turned off AutoScan and the platform seems to be stable (for now).

We are performing powerdown and powerup tests for now and we'll see if it will survive overnight. I shure hope so.

Regarding the AutoScan, I think the filesystem moust be unmounted during this scan and as that is not protected from powerdowns. This might be the problem during powerup. So I have removed AutoScan and we will see. I shure hope so that there is no bug in the TFAT implementation or Msflash block driver implementation.

O, yes. We have another platform with WCE4.2 and SH3 processor with CF card. The configuration is almost the same. TFAT filesystem is on the CF card and we don't have any problems. We had similar problems with FAT filesystem, but when we switched on TFAT, everything was ok. So, the problem may be in block driver and not the TFAT. What do You think?

Thanks, Jernej

"<tacke/>" wrote:

> I've actually got an open case with Microsoft on this issue. Their first  
> suggestion, which I'm in the process of implementing, was to take the TFAT  
> stuff from CE 5.0 and pull it into my 4.2 platform and see if that fixes it.  
> I'm not done yet, so I don't know if it fixes the problem, but you might try  
> the same.

>  
> -Chris

>  
>  
>

> "turnsek" <[turnsek@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:turnsek@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx)> wrote in message  
> [news:2617B633-7B34-41D8-A06F-7035956A920A@xxxxxxxxxxxxxxxxxxxxx](mailto:news:2617B633-7B34-41D8-A06F-7035956A920A@xxxxxxxxxxxxxxxxxxxxx)

>> Yes, the flash modifying is the issue here, but why? I have tried to  
>> remove  
>> the registry hives from the flash to RAM and now my filesystem crushes,

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>> but  
>> at least the platform boot itself (ethernet is working etc.). All files  
>> are  
>> missing on my storage card (we are using Intel StrataFlash J3). I have  
>> also  
>> tried to make two partitions, both with files written to them. In normal  
>> operation the application is only on the first partiition and all the  
>> wriiting  
>> and reading is done to that partiion. After crash, only files on this  
>> partition are missing. The second one is ok.  
>>  
>> Do I have some registry settings wrong for the TFAT or is it something  
>> else?  
>> I have check the newsgroups and it seems to me that a lot of folks are  
>> having  
>> this kind of problems. But there is no solution proposed except for "UPS  
>> kind" of backup during power down. This is not an option for us. Microsoft  
>> also said that TFAT is safe and stable. Ok, there could be an issue with  
>> the  
>> msflash strata driver, but that is also supplied by them. So, where is the  
>> catch? I' ve ruled out the hardware problem, because there is the  
>> consistency  
>> about filesystem crash. If it would be hardware then there would be  
>> problems  
>> with image and bootloader too and not with filesystem only.  
>>  
>> Thanks, Jernej  
>>  
>> "Bruce Eitman (eMVP)" wrote:  
>>  
>>> I have also seen these failures on a few platforms, both CE 4.2 and 5.0.  
>>> I  
>>> think that it has a lot to do with background compaction and removing  
>>> power  
>>> while the flash is being modified.  
>>>  
>>> --  
>>> Bruce Eitman (eMVP)  
>>> Senior Engineer  
>>> beitman AT applieddata DOT net  
>>>  
>>> Applied Data Systems  
>>> www.applieddata.net  
>>> An ISO 9001:2000 Registered Company  
>>> Microsoft WEP Gold-level Member  
>>>  
>>>  
>>> "turnsek" <turnsek@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message  
>>> [news:A6C143B2-6D21-49DF-8F05-B5950ECE3A2A@xxxxxxxxxxxxxxxxxxxx](mailto:news:A6C143B2-6D21-49DF-8F05-B5950ECE3A2A@xxxxxxxxxxxxxxxxxxxx)  
>>> > Hi all!  
>>> >

Re: TFAT stability

## Re: TFAT stability

>>>> We have PXA255 based platform with WCE42 and we are testing stability  
>>>> of  
>>>> the  
>>>> platform. Our hardware is not battery backed and we rely on powerdown  
>>>> driver  
>>>> and TFAT file system. We have noticed that after number of power down  
>>>> and  
>>>> power up cycles (quite a lot) our platform dies. We have flash resident  
>>>> persistent registry (hive based). Platform could not start anymore. I  
>>>> am  
>>>> suspecting that the file-system is corrupted (so the registry too). We  
>>>> are  
>>>> using msflash strata driver.  
>>>> Our settings are:  
>>>>  
>>>> [HKEY\_LOCAL\_MACHINE\System\StorageManager]  
>>>> "Dll"="fsdmgr.dll"  
>>>> "PNPUnloadDelay"=dword:0  
>>>>  
>>>> ; @CESYSGEN IF CE\_MODULES\_STRATAD  
>>>> ; HIVE BOOT SECTION  
>>>> ; StrataFlash block driver.  
>>>> [HKEY\_LOCAL\_MACHINE\Drivers\BuiltIn\StrataFMD]  
>>>> "Dll"="stratad.dll"  
>>>> "Order"=dword:2  
>>>> "Prefix"="DSK"  
>>>> "Ioctl"=dword:4  
>>>> "Profile"="MSFlash"  
>>>> "IClass"="{A4E7EDDA-E575-4252-9D6B-4195D48BB865}"  
>>>> "MemBase"=dword:b9300000  
>>>> "MemLen"=dword:03000000  
>>>> "Flags"=dword:1000  
>>>>  
>>>> ; Override names in default profile  
>>>> [HKEY\_LOCAL\_MACHINE\System\StorageManager\Profiles\MSFlash]  
>>>> "Name"="MSFLASH for STRATAFLASH"  
>>>> "Folder"="Storage Card"  
>>>>  
>>>> [HKEY\_LOCAL\_MACHINE\System\StorageManager\Profiles]  
>>>> "AutoMount"=dword:1  
>>>> "AutoPart"=dword:1  
>>>> "AutoFormat"=dword:1  
>>>>  
>>>> ; Keep FATFS from trying to shadow \Windows  
>>>> [HKEY\_LOCAL\_MACHINE\System\StorageManager\Profiles\MSFlash\FATFS]  
>>>> "MountFlags"=dword:2  
>>>>  
>>>> [HKEY\_LOCAL\_MACHINE\System\StorageManager\AutoLoad\MSFlash]  
>>>> "DriverPath"="Drivers\BuiltIn\StrataFMD"  
>>>> "LoadFlags"=dword:1  
>>>> "Order"=dword:0



- **References:**

- ◆ **TFAT stability**
  - ◇ *From:* turnsek
- ◆ **Re: TFAT stability**
  - ◇ *From:* Bruce Eitman \(\eMVP\)
- ◆ **Re: TFAT stability**
  - ◇ *From:* turnsek
- ◆ **Re: TFAT stability**
  - ◇ *From:* <ctacke/>

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