

Re: CreateFile performance

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- *From:* r_konjeti@xxxxxxxxxxxxx
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If many applications are calling driver, each application process context need a separate handle or duplicate handle for CreateFile(). Is it same to have a duplicate handle from other process in a given application process. Or will it make a difference if we call CreateFile() for each process context.

Will the driver unload if there is handle pending at the user mode for a device. If the device is removed and handle not closed yet, will it cause problems? If I implement this scheme, I want to close these file handle lazy way.

Thinking of these situations, I am backing off from implementing this optimization atleast for this version release. I appreciate if someone can answer.

Thanks,
Raj

soviet_bloke@xxxxxxxxxxxx wrote:

Hi mate

According to Knuth, "in 95% of cases optimization is mother of all evil", and this is what you should keep in mind when you start thinking about optimizing your code.

The beauty of your current approach is that your code is really easy to understand and maintain, which is true for both kernel-mode code and user-mode one. Certainly, CreateFile()+CloseHandle() pair on every IO operation adds some certain overhead, but how significant is it, compared to IO operation in itself?

I think that you should start thinking about changing your code only if both statements below are true:

- A. Performance is not satisfactory
- B. Profiling shows that (A) occurs mainly because of unnecessary

Re: CreateFile performance

CreateFile()+CloseHandle() calls on every IO operation

Anton Bassov

r_konjeti@xxxxxxxxxxxxx wrote:

I wrote an application dll and firewire 1394 driver.

For sending data of any size (4 byte to 2048 bytes), application calls dll routine. In dll routine each time I open a handle to the driver (mostly non-overlap operations but few overlapped operations).

Will it be useful if I open the handle to each device only once and keep using it. I can cache these handles and reuse them. Close device handle only if there is plug & play (device add or device removed) or when application is closed. Will it cause any new problems of synchronization with respect to pnp or cancel Irps that are queued at driver to receive incoming data.

Will I see any overall improvement in performance when I am handling requests every 200 milliseconds. When I am receiving data, I receive more than one packet from driver to user mode. But I cannot send more than one packet because library function doesnot know how many applications are sending or how application will send or if there is next packet.

I think CreateFile and CloseHandle() for every request is a performance hit because of user mode to kernel mode switches. Please advice if I should make the effort.

```
hDevice = CreateFile( szDeviceName,  
    GENERIC_WRITE | GENERIC_READ,  
    FILE_SHARE_WRITE | FILE_SHARE_READ,  
    NULL,  
    OPEN_EXISTING,  
    0,  
    NULL  
);
```