

# Walking the file system

**Source:**

<http://www.tech-archive.net/Archive/DotNet/microsoft.public.dotnet.languages.csharp/2004-09/0241.html>

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I wasn't sure where the best place to post this was so I am starting here, and if anyone can point me to a better group, I'd appreciate it.

The problem I have is that I want to reset permissions on a large number of files and folders during an overnight process. There are about 5000 users who maintain their My Documents folder on the server, and because of copying and moving issues, permission regularly get messed up. As such, I would like to write a process that can run nightly to go through these files and folders and reset all permissions back to what they should be.

There are two problems I am encountering and would like help with. One is the fastest way to retrieve a list of all the files and folders, about 3 million total. I know that I can do this with DirectoryInfo objects, but I would assume there is some overhead in the creation of these objects, and while not a big deal normally, it can add up with 3 million files and folders to sort through. Is there a system call that can retrieve a list of files and folders quickly? Would it benefit me to have a C++ class that constructs a string array for me and passes it back to the C# code? If so, what would be the best system call for doing this quickly?

Second is the setting of permissions. Is it faster to try to check and compare the permissions and only set the ones that need it, or is it faster to just set the needed permissions regardless of how they are currently set? Overwriting permissions is just fine, so either solution would work. The question is just one of speed.

Any help anyone could provide me on this issue would be greatly appreciated.

Thanks,  
Benjamin R. Carleski