Visual SourceSafe (VSS): Timeout Locking File

This happens a lot when you have multiple checkouts turned on using lock files. Usually the file locked represents a lock on the root node, e.g. "AAAAAAAA.LCK", and it prevents practically anyone from using the VSS database. With lock files turned on in VSS, it will refuse to do anything unless it can access the lock file for a particular node. Yes yes, it's the lock file that's locked and not the file representing the actual data.

What can you do?

You can **fix the problem short-term** by finding out who has the file locked and either temporarily revoking access (forcing the lock to be undone) or just having them exit VSS (and Visual Studio if they're using VSS integration). See "Find out who has the file locked in VSS" (#).

The long-term solution requires some decisions and many people will probably tell you to "stop using that piece of garbage and upgrade to real source control software". There are plenty of reasons for sticking with our broken friend VSS, but I think the main one is simplicity. If that's your reasoning as well, I would first suggest really scrutinizing why you have multiple checkouts enabled.

Use native locking instead of lock files

If your shop is using only Windows machines running at least NT 4, then it is suggested you use the **Native** locking option rather than Lock Files. Native locking uses Windows' API which means it is still something supported by Microsoft, whereas VSS and it's Lock Files method are not.

Set multiple checkouts only on specific projects

Individual project nodes may have multiple checkouts enabled, and this is somewhat safer than having them available across the entire database. If you have "Allow Multiple Checkouts" enabled across the entire database then first follow these steps:

1. Checkin any files that are checked out by multiple people.
2. Have all users exit VSS and/or kill the share to force everyone out.
3. Optionally, this would be a good time to run maintenance tools such as ANALYZE.
4.

Small databases

You can quite easily create new VSS databases. I think you'll find that a lot of the time you need multiple checkouts is in heavy development stages where a lot of work is being done on a specific project. Consider creating a single VSS database for such projects.

Entire nodes in VSS can be transferred between databases using the "Archive Project" functionality in the Visual SourceSafe Admin program. I recommend using this periodically anyway to create full backups of project code which include the source control history.

I have several people that need write access to one file ...

Even with multiple checkouts turned on and this possibility open, you're also setting yourself up for some painful problems such as change stomping. That happens when one or more people are editing a single file, someone checks in, and that is followed by another check in *without* a merge; the first person's changes are then lost. You can recover these changes using the history, but it's time consuming and

frustrating.

I encourage you to break up files so that you don't get into this situation. If you do need to have a single file, but people are generally working on different parts, consider having multiple files which are merged together locally by some kind of tool.
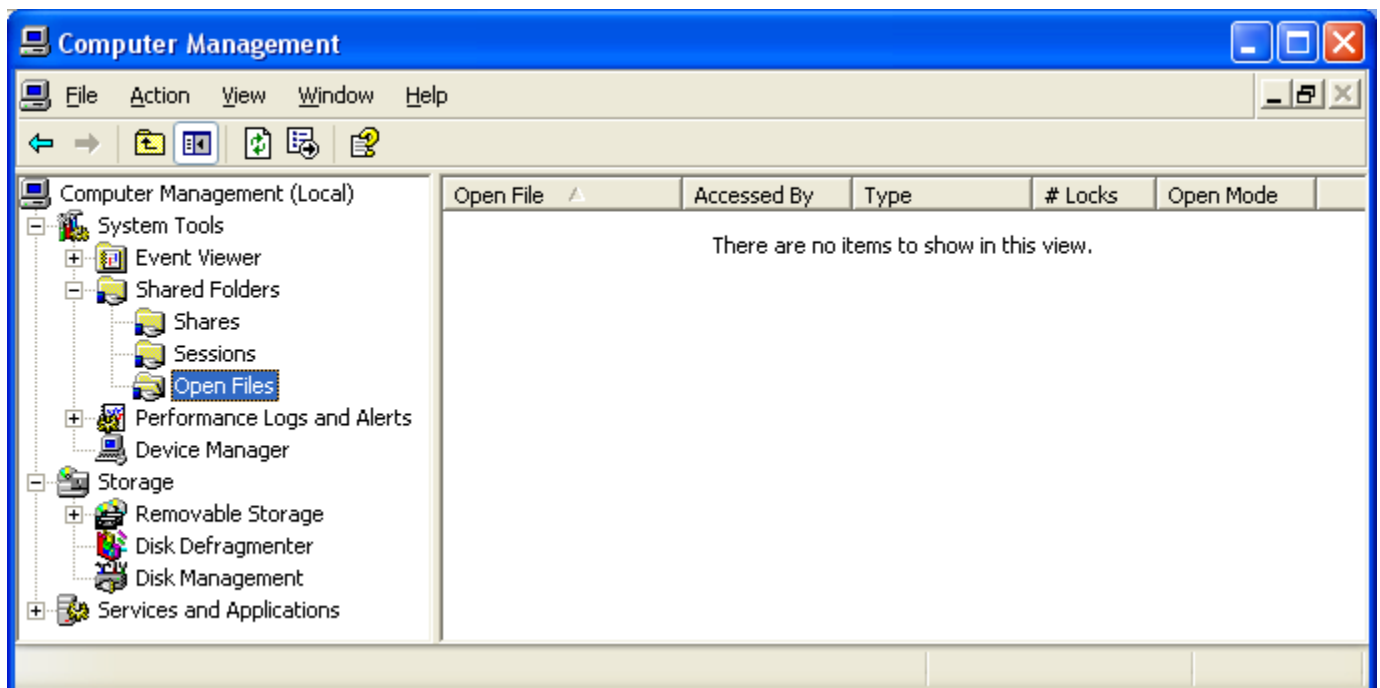
One safe, but manual, alternative

Put one person in charge of checking in changes to these big files which multiple people are changing. Have everyone turn off the read-only flag on their local copy and edit locally. When they want to "check in" their changes, they will send their copy to the person in charge of merging all the changes. That person will then do a diff, merge the appropriate sections, and then check in to VSS. People will periodically need to "Get Latest" and check the "Make writable" option (to turn off the read-only attribute on the file or files).

In order to lessen the amount of wait time, have the primary developer be the one in charge of merging changes. They'll probably want to see what's being done to the file(s) anyway.

Find out who has the file locked in VSS

If your VSS database is being accessed through a network share you can find out who, based on source machine, has what files open in the database. This can help you track down lock problems and maybe find if there is a common element, such as who always locks the files and/or what files are always locked.

Open the Computer Management pane on your Visual SourceSafe server by right-clicking "My Computer" and selecting "Manage".

You can remove access to specific files in the right-hand pane by right-clicking those items and selecting "blah".