

## Using a Global Mutex

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Hi all,

I have an application App1, that after doing some stuff starts App2.  
Both are per user applications.

Now, on an XP with FUS enabled or an Win2k with Terminal Services, there can be at the same time more than one user logged in, and for these situations I would like to do the following:

- a)– for user1, App1 starts and then it starts App2 (normal situation)
- b)– for user2, I have to find out in App1 if the App2 is already running for another user, because in that case I have to do some stuff

For doing the step b) I was thinking to do:

- App2 when starts creates a mutex with "Global\..." (to be in the global namespace)
- App1 when starts checks if that mutex already exists (i.e:  
`if(CreateMutex(NULL, TRUE, MyAppOneInstanceMutex))`  
`{if(ERROR_ALREADY_EXISTS == GetLastError()) // the mutex was already created...}`) and in this way App1 can be sure that on that machine there is already a running App2 (for that user or another one).

Questions:

- 1) Would this be a nice solution to detect from App1 that App2 is already running?
- 2) In MSDNL is written: "Starting with Windows Server 2003, the creation of a global section from a session other than the initial system session (where clients run) is a privileged operation. Because of this, an application running in an arbitrary Terminal Server session must have `SeCreateGlobalPrivilege` enabled in order to create a global section successfully. Note that the privilege check is limited to the creation of section objects, and does not apply to opening existing ones. For example, if a service or the system creates a global section, any process running in any session can access that section provided that the user has the necessary access."

Can somebody explain what that means? What does "from a session other than the initial system session (where clients run)" mean? Which is initial system session? The first logged in user?

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In my case this issue can affect my App2 which will try to create a global mutex (and it might be that user1 doesn't have my app installed, so the first time when my app will be run can be when user2 logs in, so the global mutex will be just then created)? If yes, how could I set the SeCreateGlobalPrivilege privilege?

Thanks in advance,  
Viv