



Why am I getting the following error when I try to launch *filtwin*?

```
FilterWindow has already been instantiated for this session.
```

The problem is most likely due to a residual shared memory segment. When some CIAO applications exit ungracefully, e.g. by CTRL-c, they do not get a chance to free up the shared memory segment to which they were attached. This segment stores information regarding the applications running in a session.

The session code is being updated to deal with abnormal terminations and proper cleanup. In the meantime, the shared memory segments can be cleared up as follows:

1. Use the utility `ciaoshmem` to check for remaining shared memory. When run without options, it gives a shared memory id as well as information regarding applications it thinks are still part of the session:

```
unix% ciaoshmem

      The current session for this window...
-----
| session id: v2.0.egalle.lobo.          |
| shm id:                               16200 |
|-----|-----|-----|-----|
| Application   Instance   Process id   Access Name |
|-----|-----|-----|-----|
| filtwin       1          14111            filtwin      |
| prism         1          14112            prism       |
|-----|-----|-----|-----|
```

Note that the shared memory identification (`shm id`) is 16200 in this example.

2. The Unix `ipcs` command will return shared memory and semaphore info (but not how they relate to CIAO):

```
unix% ipcs
IPC status from <running system> as of Wed Jul  9 14:56:57 EDT 2003
T          ID          KEY          MODE          OWNER          GROUP
Message Queues:
Shared Memory:
m          16200       0xf98bea    --rw-rw-rw-   egalle         head
Semaphores:
s          4718592      0xf98bea    --ra-ra-ra-   egalle         head
```

The entry with the shared memory id that matches that from the `ciaoshmem` call (16200) indicates that the shared memory segment still exists. In addition, the semaphore (used as a shared memory lock mechanism) also remains. This is recognized by matching the key `0xf98bea` from the shared memory segment with that of the semaphore.

3. Running `ciaoshmem` with the `-c` option generally will remove any CIAO session shared memory and semaphore info for a given session id. Since it will remove the shared memory and semaphore

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even if the user is logged into the same host machine using the same display, it should not be used if any applications are still running.

```
unix% ciaoshmem -c
```

4. Performing another `ipcs` or `ciaoshmem` command should indicate that the memory has been removed:

```
unix% ipcs
IPC status from <running system> as of Wed Jul  9 15:00:36 EDT 2003
T          ID          KEY          MODE          OWNER          GROUP
Message Queues:
Shared Memory:
Semaphores:

unix% ciaoshmem

          The current session for this window...
-----
| session id: v2.0.egalle.lobo.          |
| shm id:                16400          |
| -----                    |
| No applications are attached to this session. |
|-----|
```

The session memory id has changed since the old session has been removed.

5. If the `ciaoshmem -c` call fails to work, the user can manually remove the shared memory segment and semaphore using the Unix `ipcrm` command. Please read `man ipcrm` before using this command since the syntax varies slightly across operating systems. For the example above, the command would be:

```
unix% ipcrm -m 16200 -s 4718592
```

The `-m` option removes the shared memory specified by id 16200 and the `-s` option removes the semaphore specified by id 4718592.