


```
std::string s = "Hello world ";  
//complex object passed by reference  
std::thread t(complex_fnt, std::ref(s));
```

```
//detach the thread... if the program exits before the threads  
completes its job, no job is done  
t.detach();
```

```
//wait 5ms in order to assure that file is written on disk  
std::this_thread::sleep_for(std::chrono::nanoseconds(x));
```

join vs detach

```
std::string s = "Hello world ";  
//complex object passed by reference  
std::thread t(complex_fnt, std::ref(s));  
  
//detach the thread... if the program exits before the threads  
completes its job, no job is done  
t.detach();  
  
//wait 5ms in order to assure that file is written on disk  
std::this_thread::sleep_for(std::chrono::nanoseconds(x));
```

join vs detach

```
./a.out 2 5000
```

```
-- Detach a complex task --
```

```
nik@Nicolas-MacBook-Air:~/GitHub/cpp_sandbox/multithreading/thread_spawn$ ls
```

```
a.out*          fancy_object.h  test.txt          thread2.cpp       thread4.cpp
```

```
async_check.cpp  scoped_thread.h  thread1.cpp       thread3.cpp
```

```
nik@Nicolas-MacBook-Air:~/GitHub/cpp_sandbox/multithreading/thread_spawn$ cat test.txt
```

```
Hello world 0x10f069000
```

```
nik@Nicolas-MacBook-Air:~/GitHub/cpp_sandbox/multithreading/thread_spawn$
```