Is the main() function re-entrant?

I heard that in C, main() is reentrant, while in C++ is not.

Is this true? What is the scenario of re-entering the main() function?

c++ c main reentrancy reentrant

asked Jun 27 '13 at 2:59

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7 I don't think you mean reentrant. It is true however that you are allowed to call `main` in C and you are not allowed to call it in C++. – David Brown Jun 27 '13 at 3:05

1 Answer

Early C++ implementations, which were based on translation to C, implemented global constructors via adding a function call to the beginning of `main` . Under such an implementation, calling `main` again would re-run the global ctors, resulting in havoc, so it was simply forbidden to do so.

C on the other hand had no reason to forbid calling `main` , and it was always traditionally possible.

As for when it's useful, I would say "rarely". Most of the programs I've seen that called `main` were IOCCC entries.

answered Jun 27 '13 at 3:07

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