Subject: Re: C++ FQA
Posted by mirek on Mon, 12 Nov 2007 22:34:32 GMT
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cbpporter wrote on Mon, 12 November 2007 17:22Quote:
Sorry for being rude, but your understanding of actual GC (and especially conservative GC) is sort of lacking.

That could very well be the case, but I believe I have some if not enough teoretical and practical experience. What exactly did I say that was inaccurate? I was referring to generic garbage collection (no ref-counting though), but biased toward mark and sweep style algorithms, not exactly to D's implementation (about which I have only superficial knowledge). And what do you mean by conservative GC?

Well, your description of allocation as only "moving the pointer" is accurate (IMO, again) for moving collector. Anyway, D, by principle, has conservative GC, which cannot be moving (because you simply do not know where pointers are, therefore you cannot adjust them).

Obviously, for non-moving collectors, allocations are more complicated and fragmentation exists as well.

Quote:
Quote:
And no, you cannot have destructors and GC working together.

Well you can. With a little extra care, you can have fully functional destructors (just be sure never to physically deallocate memory, just do cleanups). But with GC you rarelly need non-trivial destructors. And if the programing language has a "scope" clause like D, things get a lot simpler.

No, you cannot scope is nice, but IMO limited. And finalizers are not destructors, if anything else, they are asynchronous.

Alternatively, you can suggest that GC only cares about memory management and destructors are on demant, but in that case you simply reduce GC to sort of leak checker... (because you have to carefully watch that all destructions do not leave GC collected destructable orphans).

Mirek