Garbage Collection for Heaps Only a Mother Could Love

Your Parents*

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Abstract

What do I write here? Is it just a summary of the paper? Isn't that what the introduction is for? I don't usually write papers in computer science conferences, I just know you're busy and thought this might be the best way to talk to you without distracting you from your work.

1 Introduction

Hi, it's me. I was looking through the basement trying to make some space. It's a real heap down there. Anyway, I came across some of your old stuff and I wasn't sure if you still needed it. Your father just wanted to throw it all away, but I thought I'd call just to check. This is a good time, isn't it? Are you sure? You'd tell me if it wasn't, right? OK, well, here goes.

2 Background

Where are you? I'm having a little trouble hearing you, there's a lot of noise in the background. Are you out walking? Oh, is it very windy there? I can call back if this isn't a good time. OK, that's better.

3 Algorithm

So, the first box is some of your old school things. Oh, it's your notes from AP Calculus. Remember that class? Your teacher, what was her name? Oh, come on, she was really nice. She called home that time you asked a question in class and she didn't know the answer? I know you remember. Anyway, I have your old notebook here. You're in school for computer science, you must need math a lot, right? Are you sure you won't need it? If you need it now, I can mail it. Well, if not, it'll be waiting for you here next time you come home. Oh, but then you might also need your review book from the AP exam. I think I saw a box of those old review books somewhere around here. Oh, and your pre-calc notebook is here too. You'll need that to make sense of the calc notes, right? I guess I should save that also. We need a system for this. I think I have an idea. See Figure 1.

4 Results

Well, there's a lot here. You know what? It all looks like it's stuff you might want to keep around. Well, you never know. If I move it all into your room, maybe next time you're home you can decide what you want to keep there and what you want to move into the attic.

5 Discussion

Enough about us. How are you? How's school, are you almost done? Why does it take so long for you to finish your PhD? You work with computers, shouldn't it be really fast? Are you eating alright? If you need more money, we can send you some. I just want to make sure you're eating well and everything is OK. Is everything OK?

*Current contact information: You know full well what it is, you just don't use it often enough

```
proc mark(roots)
  start = time.now()

  while not (roots.empty)
    if (time.now() - start > time_limit)
      print ``I give up, can you take a look at this stuff?''
      break

    loc = roots.removeOne()
    loc.mark()
    for (loc' in loc.pointers())
      roots.add(loc')
```

Figure 1: We can mark all of the things that you need, and then I can come back later to sweep up.

6 Conclusion

Well, I imagine you need to get back to work. Can we talk again this weekend?

A Future Work[1]

While this discussion was (mercifully) short, it leaves open many rich areas of potential future research. In the future, your parents hope to investigate many other collection strategies from the literature, such as parallel ("your father and I both spent the whole day on this"), concurrent ("don't mind me, keep doing what you're doing while I clean up your mess"), incremental ("just clean up after yourself as you work, why is that so hard?"), real-time ("while you're home, you can take care of this now"), tagless ("are these boxers yours or your father's?") and copying ("Mom, she's copying me!"). Many cultures also provide for unique collection strategies worthy of discussion. For example, this paper does not discuss the frum-space invariant of Jewish garbage collectors ("What's this ramen doing here, don't you know it's Pesach?"). I'd write more, but oops, my dad is calling to bug me about my car insurance.

[1]Appendix by Stefan Muller, School of Computer Science, Carnegie Mellon University