
Subject: Re: Proper pointer cleanup question
Posted by [JD Smith](#) on Tue, 08 Apr 2003 23:45:43 GMT
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On Mon, 07 Apr 2003 16:01:27 -0700, M. Katz wrote:

```
> I want to make sure I'm taking all the steps necessary to clean up
> pointers and free memory when I'm done with them. Here's an example.
>
> Suppose I have a pointer to a structure that contains pointers.
>
> a = ptr_new({n:10, p:ptrarr(10)})
>
> So, a is a pointer, and ((*a).p)(i) are pointers as well. When I'm done
> with a and all of it's components, I can do a few things to clean it up,
> but I don't want to do more than what's necessary. Here's a few options.
>
> 1) Just a:
> ptr_free, a
>
> 2) a and all of its dependent pointers: for i=0,n_elements( (*a).p )-1
> do $
>   ptr_free, ((*a).p)(i)
> ptr_free, a
>
> 3) Re-assign a to a scalar:
> a = 0
>
> 4) Re-assign *a to a scalar:
> *a = 0
```

Another option is:

```
heap_free,a
```

which will accomplish the same as #2 (avoiding a memory leak), and is only slightly slower. When you're feeling truly lazy, it's quite a blessing. You have no flexibility to pick and choose what to parts of a data structure to free, but often this isn't an issue.

Good luck,

JD
