

# Re: Ah've got them Function Pointer blues

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*Source:* [http://coding.derkeiler.com/Archive/C\\_CPP/comp.lang.c/2008-08/msg02806.html](http://coding.derkeiler.com/Archive/C_CPP/comp.lang.c/2008-08/msg02806.html)

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- *From:* "MikeC" <Mike.Best@xxxxxxxxxxxxxx>
  - *Date:* Fri, 22 Aug 2008 14:31:52 +0100
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"August Karlstrom" <fusionfile@xxxxxxxxxx> wrote in message  
[news:g8jtk7\\$me6\\$1@xxxxxxxxxxxx](news:g8jtk7$me6$1@xxxxxxxxxxxx)

MikeC wrote:  
[...]

I would like to have an array of structures, something like

```
struct FS
{ <function pointer>;
  <some other variables>;
};
```

My problem is that the <function pointer> is of unknown type – in  
function\_structure[2] it may be

```
int func_1(int, int) {...}
```

in function\_structure[5], it may be

```
void func_2(char **cpt) {...}
```

etc.

How come the functions have different signature and what do you want to  
achieve? Please, tell us a bit more about the underlying problem.

August

Well, I would have done that in the first place, but that's to do with  
architecture, not with C, and this is a C group, and flames burn me. In my  
original post, I asked:

"Incidentally, this may not be the best way to design the program, so I'd  
like to ask about that too.

## Re: Ah've got them Function Pointer blues

Can anybody suggest a newsgroup? (program architecture isn't really C)"

However, as you ask ...

I haven't finished specifying the program yet – I keep having bigger and better ideas – but I want to write a text macro engine. It will interpret commands from a (text) command file, executing them on an input (read only) file, and producing an output file. The commands will be, for example

```
copy off // don't copy anything from the input file to the output file
find_forward "a text string"
move_left 6 // characters
copy on // this causes any character scanned by the cursor to be copied to
the output file
loop 6 // times
{ <more commands>
}
etc....
```

.... you get the idea.

I wanted to run through the command (program) file and compile it into a forth-like stack (yes, I'm a dinosaur), with each stack element being a structure, which contains, among other things, a pointer to the function that will execute the command. The commands do different things, so they have different signatures, hence my question.

Among all the ways of solving this problem (the architecture problem), I'm sure people who have spent a life in professional programming will know of much better methods, and probably be able to pull in other packages/libraries that would do a lot of the work – but I don't know about those. I usually write programs from scratch, and write everything.

Last night, I wrote `char *stristr(char *str)` because it isn't in the library – though I'm sure it's somewhere (though I wouldn't know where to look). I'm rather pleased with it! :-)

Regards,

MikeC

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