
Subject: problem with call_external()

Posted by [chs11](#) on Thu, 05 Oct 1995 07:00:00 GMT

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I'm trying to pass a two dimensional array of floats to an ansi C function.
I can successfully pass a 1-d array, but 2-d doesn't want to work.
Here's what I'm doing (in an abbreviated form)

```
;; idlprogram.pro ;;
pro idlprogram
a=fltarr(400,100)
b=fltarr(8)
m=long(400)
n=long(100)
l=long(8)
;some code to put data into a and b...
dummy = call_external('cfunc.so','_cfunc',a,b,m,n,l)
end
```

```
/* CFUNC.C
*/
void cfunc(int argc, void **argv)
{
    float ** a;
    float * b;
    int m,n,l;

    a = (float **) argv[0]; /* this doesn't work */
    b = (float *) argv[1]; /* this works */
    m = *(int *) argv[2];
    n = *(int *) argv[3];
    l = *(int *) argv[4];

    /* code to printf a and b to stdout */
    /* code to do something with a and b */
}
```

I'm running this on a sun4 as follows...

```
$ acc -fast -pic -c cfunc.c
```

```
$ ld -o cfunc.so -assert pure-text cfunc.o (and a custom library).a
```

```
$ idl
```

```
IDL> idlprogram
```

```
m = 400
```

```
n = 100
```

```
l = 8
```

```
b = 0.1, 0.2, 0.3, ...
```

```
a =
```

```
memory fault(coredump)
```

\$

If anyone can help, I would be very grateful. Please email responses to me (chs11@columbia.edu) and I will post a solution when one is found. I appologize if this is a faq, but I don't know where to find the faq.

Carl
