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Subject: Re: Can't pass data with CALL\_EXTERNAL to C function

Posted by [Allan Whiteford](#) on Fri, 20 Jun 2008 11:18:11 GMT

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Dan wrote:

> Hi everyone,

>

> I am having problems sending data to my C function through

> CALL\_EXTERNAL. Specifically, I send the data, but it seems as if all

> the variables passed to the C function are suddenly 0 (maybe

> uninitialized). I have posted my test code below. Please take a

> look, any help would be greatly appreciated. It is also probably

> worth mentioning that when I return something from the function (like

> return 2;) or something like that, the IDL value will be 2 (i.e.

> values are returned correctly, so I know the function is at least

> running to completion).

>

> ----- CODE -----

<snip>

Dan,

It's hard to see/test exactly what you're doing as some of your lines have been truncated (unfortunately the important line including call\_external).

However, the following is a short example of something which goes along the lines of what you're doing and works ok for me:

passref.pro

-----

```
pro passref
```

```
  a=fltarr(100,100)
```

```
  b=fltarr(200,200)
```

```
  a[17,23]=3.14
```

```
  b[52,79]=2.72
```

```
  junk=call_external('passref.so','passref',a,b)
```

```
  print,a[12,54]
```

```
end
```

passref.c

-----

```
#include <stdio.h>
#include "idl_export.h"

void do_work(float *a,float *b)
{
  a[12+54*100]=1.62;
  printf("%f\n",a[17+23*100]);
  printf("%f\n",b[52+79*200]);
}

IDL_VPTR passref(int argc, IDL_VPTR argv[])
{
  do_work((float *) argv[0],(float *) argv[1]);
}
```

### Compilation

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```
gcc -I/usr/local/rsi/idl/external/include \
  -shared passref.c -o passref.so
```

I hope this helps. If you can repost your original example without the lines being cut off then probably someone can point out the exact part you'd need to change to get it working. In particular, the keywords you're giving to call\_external are probably important.

Thanks,

Allan

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