
Subject: problem with call_external
Posted by [knight](#) on Fri, 16 Sep 1994 19:04:33 GMT
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I am trying to call a c function from IDL, and it works *ONCE.* On the second call, I get the following:

```
IDL> a=get_sdv_frame()
% Unable to free memory: from array descriptor.
  Invalid argument
% Execution halted at GET_SDV_FRAME </users/nuc/idl/pro/get_sdv_frame.pro(
  46)> .
%   Called from $MAIN$ .
IDL>
```

Is this a symptom you can tie to a specific cause? In this case, I am transferring data from a digital frame grabber to the location of an IDL array.

I attach the particulars below.

Thanks, Fred

-----IDL site -----

IDL. Version 3.6 (sunos sparc).
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-----IDL function to call_external -----

```
;+
; NAME:
; get_sdv_frame
; PURPOSE:
; This function returns a frame of data read from the SDV digital frame
; grabber.
; EXAMPLE:
; a = get_sdv_frame(sdvunit)
; CALLING SEQUENCE:
; a = get_sdv(sdvunit[,options])
; INPUTS:
; sdvunit = 0 or 1, depending on which SDV card is being accessed
; OPTIONAL INPUTS:
;
; KEYWORD PARAMETERS:
```

```

; help = flag to print this header
; OUTPUTS:
; a = frame of data, usually shorts, with dimensions selected via last
; execution of the program script sdvload
; OPTIONAL OUTPUTS:
;
;
; COMMON BLOCKS:
;
;
; SIDE EFFECTS:
;
;
; RESTRICTIONS:
;
;
; PROCEDURE:
;
;
; MODIFICATION HISTORY:
; write, 15 Sep 94, FKK (knight@ll.mit.edu)
;-
FUNCTION get_sdv_frame, sdvunit, help=help
;
; =====>> HELP
;
IF keyword_set(help) THEN BEGIN
    doc_library, 'get_sdv_frame'
    return, 0
ENDIF
;
; =====>> Use call external
;
IF n_elements(sdvunit) EQ 0 THEN sdvunit = 0
frame = intarr(255, 256) ; frame buffer
result = call_external( $
    '/export/home/telluride/sdv/new/get_sdv_frame.so' $ ; .so location
    , 'get_sdv_frame' $ ; symbol
    , long(sdvunit) $ ; 1st param
    , frame) ; 2nd param
return, frame
END

----- c code in .so file -----

/*
 * Function to grab one frame from the sdv card.
 * Start with $SDV/new/sdvread.c.
 * Modify for use with IDL via call_external.
 * knight@ll.mit.edu, 15 Sep 94
 */

#include <stdio.h>

```

```

#include <sys/types.h>
#include "camera.h"
#include "sdvlib.h"

int get_sdv_frame(argc,argv)
int argc ;
void *argv[] ;
{
    char devname[20];
    SdvDev      *sd;

    sprintf(devname,"/dev/sdv%d",*(int *) argv[0]) ;
    if ((sd = sdv_open(devname, SDV_NOLOCKDEV)) == NULL)
    {
        printf("couldn't open %s\n",devname);
        exit(1);
    }
    sd->image = (caddr_t)argv[1];
    if (sdv_grab(sd) < 0)
        printf("couldn't get frame from %s\n",devname);
    sdv_close(sd) ;
    free(argv[1]);
    printf("done\n") ;
}

```

----- makefile -----

```

get_sdv_frame: get_sdv_frame.c sdvlibso.c
cc -pic -fsingle -c get_sdv_frame.c
cc -pic -fsingle -c sdvlibso.c
ld -o get_sdv_frame.so -assert pure-text get_sdv_frame.o sdvlibso.o
--

```

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