Subject: Passing Data Through CALL_EXTERNAL
Posted by djk on Fri, 17 Mar 1995 20:59:03 GMT
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I'm having problems passing a 2-D array to a C routine using IDL's
CALL_EXTERNAL procedure. Everything works fine passing scalars and 1-D
arrays but when I pass a 2 dimensional float array, I can not seem to
find the data in the second row of the array. I wrote some test code:

TEST.PRO:

```
nx = long(2)  &  ny = long(2)
arr = findgen(nx,ny)
a = call_external('test.so', '_test', arr, nx, ny)
end
```

TEST.C:

```
long junk(argc, argv)
     int argc;
     void *argv[];
{
  long    *nx,
          *ny;

  float  **arr;

  /*  Assign passed in arguments */
  arr = (float **) argv[0];                /* array */
  nx  = (long *)  argv[1];                  /* X dimensions of array     */
  ny  = (long *)  argv[2];                  /* Y dimensions of array     */

  printf("Arr[][]...);                    /* prints: 0, 1, 0, 0 */
}
```

Unfortunately the IDL documentation does not address 2-D array.
I'm using IDL version 3.6.1 on Sun OS 4.1.3.
Any suggestions as to what I am doing wrong? Thanks,

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```
       (  .
     (. )  )
      ) ( (                David Kendig (Hughes STX)
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`---`-`------'---'
```

Subject: Re: Passing Data Through CALL_EXTERNAL
Posted by djk on Wed, 22 Mar 1995 14:40:39 GMT
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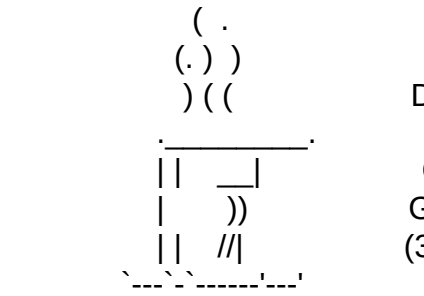
This is just a follow up to my question concerning passing multi-dimension arrays using call_external. First I want to thank all those who responded. The answer is rather simple. One just passes the multi-dimensioned array as a simple array.

Using the example from my original post:

```
long junk(argc, argv)
    int argc;
    void *argv[];
{
  long    *nx,
          *ny;

  float  *arr;

  /*  Assign passed in arguments */
  arr = (float **) argv[0];              /* array */
  nx  = (long *)  argv[1];               /* X dimensions of array     */
  ny  = (long *)  argv[2];               /* Y dimensions of array     */

  z = arr[ix + iy * nx];
}
```

Thanks again for all the help!

--



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Coffee coffee ... djk@egretop.gsfc.nasa.gov