
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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```

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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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'---'-----'
```

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