Subject: Re: Guide: how to call Fortran from IDL in a portable and stardard F 2003 way
Posted by David Fanning on Thu, 27 Feb 2014 17:01:04 GMT

negri.andre@gmail.com writes:

> Recently, I felt the necessity (in IDL) of a subroutine that was coded extremely well in Fortran, with a skilled use of nested do loops over some matrices. I though that the time was come to interface IDL and Fortran.

Hi Andre,

Nice article! Can I make this available to the community by putting it
on my web page?

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: Guide: how to call Fortran from IDL in a portable and stardard F 2003 way
Posted by Lajos Foldy on Thu, 27 Feb 2014 17:34:10 GMT

On Thursday, February 27, 2014 5:51:08 PM UTC+1, negri...@gmail.com wrote:

> Recently, I felt the necessity (in IDL) of a subroutine that was coded extremely well in Fortran, with a skilled use of nested do loops over some matrices. I though that the time was come to interface IDL and Fortran.

Nowadays I use /AUTO_GLUE in CALL_EXTERNAL. Here is a Fortran 77 example (I used Fortran 30 years ago :-):

test.f:
```
    subroutine test(array, n,m)
    integer*4 n, m
    real*8 array(n,m)
    write(*,*) array
    end
```

gfortran -c -fPIC test.f

```
gfortran -shared -o test.so test.o
```

test.pro:

```
pro test
n=3l
m=4l
array=dindgen(m,n)
trash=call_external('test.so', 'test_', array, n, m, /auto_glue)
end
```

```
IDL> test
% Compiled module: TEST.
   0.0000000000000000       1.0000000000000000       2.0000000000000000
3.0000000000000000       4.000000000000000
0      5.0000000000000000       6.0000000000000000       7.0000000000000000
8.000000000000000       9.000000000
0000000      10.000000000000000       11.000000000000000
```

regards,
Lajos

Subject: Re: Guide: how to call Fortran from IDL in a portable and stardard F 2003 way
Posted by Andrea[1] on Thu, 27 Feb 2014 18:57:21 GMT
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David, of course you can!
Lajos, very nice, so it is possible to use auto_glue also for Fortran, I wasn't aware of this possiblity. Maybe in the GDL case you have to use the "old" way, but I'm not sure.