Subject: Fortran -> IDL translator
Posted by uk2 on Wed, 31 Aug 1994 22:50:51 GMT
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Hi,

I was thinking about the logistics of writing a programme to convert fortran source code into IDL. But I'd like to know whether (a) It's been done (successfully); or (b) there is some reason why it's not a worthwhile project. If it's neither, would anyone like to collaborate ?

Pete (uk2@lpl.arizona.edu)

Subject: Re: Fortran -> IDL translator
Posted by amaravad on Fri, 02 Sep 1994 16:01:11 GMT
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In article <uk2-310894155254@ulysses.lpl.arizona.edu> uk2@lpl.arizona.edu (Pete Riley) writes:
> Hi,
>
> I was thinking about the logistics of writing a programme to convert
> fortran source code into IDL. But I'd like to know whether (a) It's been
> done (successfully); or (b) there is some reason why it's not a worthwhile
> project. If it's neither, would anyone like to collaborate ?
>
> Pete (uk2@lpl.arizona.edu)

If you already have working FORTRAN code, then you may be better off speed wise, by just doing only your interface in IDL, and then using the IDL CALL_EXTERNAL procedure to execute the fortran code. I donot see why you would want to translate all your code into IDL code.

Ratty

--
This is my .sig file and not yours...

Subject: Re: FORTRAN -> IDL
Posted by Robert S. Hill on Sun, 11 Jan 1998 08:00:00 GMT
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On Sun, 11 Jan 1998, Kevin Ivory wrote:
> Kelly Dean wrote:
>>
>> I am converted some FORTRAN code into IDL, but I am confused what this
>> FORTRAN statment "SINE(X)=SIN(.01745329*X) " in this function is trying
>> to do.
>

I think this may be a Fortran relic called a "statement function." In
that case, it would be defining a new function sine() for the scope of the
current program unit. A roughly similar thing is done nowadays in C using
a preprocessor definition with arguments.

Bob Hill
--
Robert.S.Hill.1@gsfc.nasa.gov Phone: 301-286-3624
Raytheon STX / Code 681, NASA/GSFC, Greenbelt, MD 20771

Subject: Re: FORTRAN -> IDL
Posted by rivers on Sun, 11 Jan 1998 08:00:00 GMT
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In article <34B9133C.3E4E6636@linmpi.mpg.de>, Kevin Ivory <Kevin.Ivory@linmpi.mpg.de>
writes:
> Kelly Dean wrote:
>>
>> I am converted some FORTRAN code into IDL, but I am confused what this
>> FORTRAN statment "SINE(X)=SIN(.01745329*X) " in this function is trying
>> to do.
>
> It looks like it takes the angle in degrees X, calculates the sine
> and puts it into the Xth array element of the array SINE.
> Something like IDLs
> sine = sin(!dtor * x)
> where both x and sine are arrays.

No, I think this is what is called a "Statement Function" in FORTRAN. It is
basically a 1-line function definition. This one says that SINE(X) is the same
as SIN(X), except that it takes its argument in degrees rather than radians.

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Subject: Re: FORTRAN -> IDL
Posted by Kevin Ivory on Sun, 11 Jan 1998 08:00:00 GMT
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Kelly Dean wrote:
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It looks like it takes the angle in degrees X, calculates the sine
and puts it into the Xth array element of the array SINE.
Something like IDLs
sine = sin(!dtor * x)
where both x and sine are arrays.

Hope this helps
Kevin
--
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Subject: Re: FORTRAN -> IDL
Posted by Harald Frey on Mon, 12 Jan 1998 08:00:00 GMT
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Kelly Dean wrote:

> I am converted some FORTRAN code into IDL, but I am confused what this
> FORTRAN statment "SINE(X)=SIN(.01745329*X) " in this function is trying
> to do.
>
> FUNCTION GETDIST (HEIGHT,ANGLE,ZENANG,SLANT)
> DATA RAD/3437.748/
> SINE(X)=SIN(.01745329*X)
> ARCSIN(X)=57.29578*ASIN(X)
> ANG=ABS(ANGLE)

> FAC=SINE(ANG)/RAD
> .
> .
> .
>
> Any hints?
>
> Kelly Dean
> CSU/CIRA

!pi/180.=0.0174533

Harald Frey
