Subject: Binary Output/Input From/To IDL on PC??????
Posted by rlefevre on Tue, 19 Apr 1994 17:50:23 GMT

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I produce an array (145,73,10) in IDL. I open an output file (OPENW) and
write out binary data (WRITEU). I try to read the binary output into MS
Fortran PowerStation (on a PC). If I use a Fortran UNFORMATTED open, I get a
wrong file type error in Fortran. If I use a PowerStation BINARY open, it
works. However, only half the input array gets in, the other half is all 0s.
I think it has something to do with the "unformatted" data format.
Suggestions???
I have tried DIRECT ACCESS in Fortran.
I have tried XDR output in IDL.
When I use ASCII output/input all is fine--but I don't want to use ASCII.
Thanks.

Randy J. Lefevre
Return e-mail to rlefevre@tamu.edu

Subject: Re: Binary Output/Input From/To IDL on PC??????
Posted by buteau on Tue, 26 Apr 1994 08:07:31 GMT

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Be very careful with the MS Fortran Unformatted Write.
MS Fortran writes data with control blocks and this control blocks are not
the same of other Fortran (Sun Fortran for example) or Pv Wave.

 I had difficulties reading with Pv Wave data written by MS Fortran Unformatted Writes . The only
solution I had was to carefully look in the MS manual how this Fortran writes data and control
blocks and then with Pv Wave make a byte per byte read of the data to discard the control blocks
and to retrieve my data.

Subject: Re: Binary Output/Input From/To IDL on PC??????
Posted by grunes on Tue, 26 Apr 1994 12:05:57 GMT

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In article <1994Apr26.080731.17544@nenuphar.saclay.cea.fr> buteau@bali.saclay.cea.fr
(A.Buteau 62 17) writes:
> From: buteau@bali.saclay.cea.fr (A.Buteau 62 17)
> Subject: Re: Binary Output/Input From/To IDL on PC??????
> Date: Tue, 26 Apr 1994 08:07:31 GMT
> Be very careful with the MS Fortran Unformatted Write.
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>
>

Ah, but under MS Fortran, one may read/write raw information (no control
blocks) with direct access statements, at least if the form is binary.
If you set the record length to 1, and increment the record # by the
number of bytes you have read or written, you will be OK. E.G.:

```
 integer*4 i,j
 open(1,file='filename',form='binary',access='direct',
    &   recl=1)
 irec=1
 read(1,rec=irec)i
 irec=irec+4
 read(1,rec=irec)j
 ...
```

As far as being the same as Sun Fortran, different brands of Fortran
for the Sun have produced different control blocks too.

On Sun Fortran, ordinary direct access opens:
```
 open(1,file='filename',form='unformatted',access='direct',
    &   recl=1)
```
will read or write raw data.