
Subject: Re: PV-Wave, Fortran & Windows NT
Posted by [Martin Schultz](#) on Wed, 01 Apr 1998 08:00:00 GMT
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Dave Greenwood wrote:

>
> I apologize for posting such a trivial question, but I don't have access
> to a system with PV-Wave and I'm trying to help a friend who claims to
> have only limited programming skills at best. My friend has a file
> written from PV-Wave (v6.1) on a Windows NT system and wants to read
> that file using a Fortran (Digital Visual Fortran 5.0) program.
>
> The test PV-Wave program is
>
> openw, 10, 'intdat.dat'
> writeu, 10, indgen(11,1)
> close, 10
>
> I would expect that the following Fortran program would read that file:
>
> integer idata(11)
> open(13, file='intdat.dat, form='unformatted')
> read(13) idata
> close(13)
>
> Is there any reason that Fortran program shouldn't read the PV-Wave
> file? My friend claims it doesn't work but as yet he hasn't given me
> the exact error messages he gets (he's halfway 'round the world so it
> takes forever to get the things tried exactly as I'd like them.)
>

Here is what the IDL online help has to say about this:

(OPENW; keywords)

F77_UNFORMATTED

Unformatted variable-length record files produced by Unix FORTRAN programs contain extra information along with the data in order to allow the data to be properly recovered. This method is necessary because FORTRAN input/output is based on record-oriented files, while Unix files are simple byte streams that do not impose any record structure. Set the F77_UNFORMATTED keyword to read and write this extra information in the same manner as f77(1), so that data to be processed by both IDL and FORTRAN. See "UNIX-Specific Information" on page 199 of BuildingIDL Applications for further details.

This keyword is only valid on Unix platforms though.

Hope it helps,

Martin

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Subject: Re: PV-Wave, Fortran & Windows NT
Posted by [Ferdinando Iavarone](#) on Thu, 02 Apr 1998 08:00:00 GMT
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Dave Greenwood ha scritto:

> open(13, file='intdat.dat, form='unformatted')

Hi,
I write IDL unformatted data and I read it with
VF 90 using open(.....,form='binary').
Please send me notice.
Good work.

--

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Subject: Re: PV-Wave, Fortran & Windows NT
Posted by [wmc](#) on Thu, 02 Apr 1998 08:00:00 GMT
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In article 16450809@fedao1.fed.ornl.gov, greenwoodde@fedao1.fed.ornl.gov (Dave Greenwood)

writes:

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> that file using a Fortran (Digital Visual Fortran 5.0) program.

Fortran puts (when writing, and expects, when reading) a word containing the length of the record at the start and end of each unformatted record (at least, is does on unix). Running IDL (/PVWAVE) on unix you use "/f77" on the openw command (tell your friend to read the manual for "open") but the manual *claims* this is a unix-only command, though why its not available on windows I'm not sure. You could explicitly write the length info that fortran expects, though this is messy. Another problem you may have is: why do you expect binary compatibility between windows and unix?

All in all, you're probably better off writing out the data formatted, unless there is really huge amounts of it.

- William

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