Subject: Re: reading binary files Posted by Wox on Tue, 19 Jun 2007 13:00:42 GMT

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On Tue, 19 Jun 2007 00:49:17 -0700, Vince Oliver
<vince@complex.elte.hu> wrote:
> Firest try was using Assoc function. It was somehow natural choice
> since the number of spectra is large. So:
>
> data = 'c:\users\spectra10.bin'
> spectra = Assoc(lun, Fltarr(2,7323))
> aSpectra = spectra[0]
> print, aSpectra[0,0],aSpectra[1,0]
> print, aSpectra[0,7322],aSpectra[1,7322]
> print
> aSpectra = spectra[1]
> print, aSpectra[0,0],aSpectra[1,0]
> print, aSpectra[0,7322],aSpectra[1,7322]
> The outout is
> 8.20937e-041
                  91.0000
> 1.07971e-021 3.60000e+008
> 2.11875e-022 8.20937e-041
> 2.57653e-020 2.40000e+008
>
> It was clear that I should put an offset keyword in Assoc like spectra
> = Assoc(lun, Fltarr(2,7323),4). The output in this case is:
>
> 91.0000 2.04773e-023
> 3.60000e+008 2.11875e-022
>
> 8.20937e-041 8.20937e-041
> 2.40000e+008 5.08605e-021
>
> So the 1st spectrum is properly read out but the second not. It seems
> that there is an offset between each spectra. How to read out spectra
> properly in this case?
```

From IDL's help:

"Unformatted data files generated by FORTRAN programs under UNIX

contain an extra long word before and after each logical record in the file. ASSOC does not interpret these extra bytes but considers them to be part of the data. This is true even if the F77\_UNFORMATTED keyword is specified..."

I have no experience with this, but what happens if you use (e.g. for 3rd spectrum):

specnr=2
nlen=7323
n=2\*nlen+1
specoff=n\*specnr\*4
spectra = Assoc(lun, Fltarr(n),specoff)