
Subject: 8 bit binary images

Posted by [mjb1013](#) on Mon, 21 Jul 1997 07:00:00 GMT

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I've just written a Fortran 77 program that was supposed to generate a 8 bit binary data file for PV-Wave.

The file format consists of 800 rows of 1000-character-long strings, each character in the string meaning to represent individual pixels in an image as you move from left to right.

I used the CHAR command to write CHAR(0) for a 'white' pixel and CHAR(255) for a 'black' pixel. Each row consists of 1000 of these CHAR(0/255) characters concatenated together with no space in between them.

I used NAVIGATOR on a DEC to try and import the file I had written and couldn't get a meaningful image. I suspect that my formatting is wrong. I have read the manuals and can't seem to find an explicit description for the file format required to create the data.

Does anyone have any suggestions, or an explicit description of the necessary format required to encode the 8-bit format?

Thanks in advance

Mike Black

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Subject: Re: 8 bit binary images

Posted by [David Foster](#) on Wed, 23 Jul 1997 07:00:00 GMT

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Mike Black wrote:

>

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> a 8 bit binary data file for PV-Wave.

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- > CHAR(0/255) characters concatenated together with no space in between > them.
- > Does anyone have any suggestions, or an explicit description of the
- > necessary format required to encode the 8-bit format?

I would suggest saving the image as a BYTARR(800,1000). You could define the array as:

```
CHARACTER*1 ARRAY(800,1000)
```

in your fortran program, define the individual pixels and then save the array using binary I/O:

```
OPEN(11, FILE=FNAME, FORM='BINARY')
WRITE(11) ARRAY
CLOSE(11)
```

Then read the array into IDL using:

```
ARRAY = BYTARR(800,1000)
OPENR, UNIT, FNAME, /GET_LUN
READU, ARRAY
```

If you try to write the 800 rows as strings in your Fortran program then you are bound to run into problems with new-line characters and the like.

Also, be aware that if you are using something like:

```
OPEN(11, FILE=FNAME, FORM='UNFORMATTED')
```

to write the file in the fortran program, then you must use the /F77_UNFORMATTED keyword in your IDL OPENR() statement. I believe that specifying FORM='BINARY' implies direct access and makes this keyword unnecessary.

Hope this helps.

Dave

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"I have this theory that if we're told we're bad,  
then that's the only idea we'll ever have.  
But maybe if we are surrounded in beauty,  
someday we will become what we see." - Jewel Kilcher

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