Subject: integer to float?
Posted by Jonas on Fri, 10 Jul 1998 07:00:00 GMT
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Hi all you IDL'ers
Instead of scanning the manual, I'll present a question here...

I have an image file from our Siemens Magnetom scanner.
the format is stored as bigendian and is originally in 32-bit float format.
Since I'm new at this I would like some guidance in retrieving the pixel
information in a smooth way. I have written some code like this:
Read image information to vector as 32-bit integer
perform byte-swap
save in new file as byte
read new file as 32-bit float and sort the data to a complax array.

It works fine, but I would prefer to convert from integer to float without
having to save to a new file. How is that done?

sincerely
Jonas

Subject: Re: integer to float?
Posted by menakkis on Mon, 13 Jul 1998 07:00:00 GMT
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"Jonas" <jonas_2@hotmail.com> wrote:
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> Since I'm new at this I would like some guidance in retrieving the pixel
> information in a smooth way. I have written some code like this:
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> perform byte-swap
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> read new file as 32-bit float and sort the data to a complax array.
>
> It works fine, but I would prefer to convert from integer to float without
> having to save to a new file. How is that done?

I don't quite see what you are up to here. If I'm reading between the lines
correctly, it seems that your image is not actually FLOAT but
single-precision complex, and you are uncertain about how BYTEORDER will deal
with complex. Either way, you can perform the byte re-ordering without using
a temporary file. Simply read the original image into an array of the
correct type (FLOAT or COMPLEX?) and then do:
BYTEORDER,my_image_array,/LSWAP

This will do the proper byte order reversal (genuine bigendian to genuine
smallendian) for LONG, FLOAT or (single-precision) COMPLEX.

Peter Mason

Subject: Re: integer to float?
Posted by Jonas on Tue, 14 Jul 1998 07:00:00 GMT
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menakkis@my-dejanews.com skrev i meddelandet
<6obm1mdba1@nnrp1.dejanews.com>...
> "Jonas" <jonas_2@hotmail.com> wrote:

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> This will do the proper byte order reversal (genuine bigendian to genuine
> smallendian) for LONG, FLOAT or (single-precision) COMPLEX.
>
>
> Peter Mason
>

Thanx Peter!
My problem was that I did not realise that the BYTEORDER procedure worked on
single-precision complex. Instead of reading the original file into a
complex array at once and perform BYTEORDER, I used quite a detour:
read the file as long integer, performed the byte swap (using byteorder),
saved as byte, read to vector as float, separated to real and imaginary

arrays, joined to a complex array.

Thanxalot (again), this group is a gold mine for a total newbie like me,
keep up the good work guys...
Jonas
