Subject: Re: Recombining Real and Imaginary parts of FT in IDL?
Posted by Kenneth P. Bowman on Tue, 31 Mar 2009 17:55:17 GMT
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In article
<2ac3c5ce-a28d-41a3-bd83-b93a16cef84a@j8g2000yql.googlegroups.com>,
 robparker23@googlemail.com wrote:

> Hi all,
>
> I think this may be quite simple but I just can't figure it out.
>
> I have some fourier transform spectral data which contains both the
> real and imaginary parts of the spectra and want to recombine them to
> get the final spectra.
>
> Is there a simple way to do this in IDL? All of the spectral data I've
> examined in IDL before has been the final recombined spectra and not
> separated in this way.
>
> Cheers

You might want to look at the chapter on FFTs in my book,
An Introduction to Programming with IDL. There are examples
to illustrate how the complex FFT works.

Ken Bowman

Subject: Re: Recombining Real and Imaginary parts of FT in IDL?
Posted by R.G. Stockwell on Tue, 31 Mar 2009 19:45:26 GMT
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<robparker23@googlemail.com> wrote in message
 news:2ac3c5ce-a28d-41a3-bd83-b93a16cef84a@j8g2000yql.googleg roups.com...
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> Cheers

I'm not sure what you mean. Do you want the power spectrum from
the real and imag parts? just do
for amplitude spectrum:
pow = abs(compspe)
for power spectrum
pow = abs(compspe)^2

or if you have two arrays, one for real part and one for imaginary part,
then just do
pow = abs(complex(real,imag))^2

or
pow = real^2 + imag^2

cheers,
bob
