
Subject: Re: Complex rebin

Posted by [Craig Markwardt](#) on Fri, 28 Mar 2003 09:12:26 GMT

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MKatz843@onebox.com (M. Katz) writes:

>> Any reason why REBIN doesn't take complex args?

>

> I can't say why REBIN doesn't take complex args, but I can say that
> you have to be very careful when you interpolate complex values if you
> want to have meaningful results.

>

> Consider these two numbers

> $z_1 = \text{complex}(1,0) = 1.$

> $z_2 = \text{complex}(-1,0) = -1.$

>

> Suppose you were using rebin to reduce the size of a linear array by

> 2.

> Which of the following behaviors would you want?

>

> You could separately average x and y like this, and get zero:

> $z_avg = (\text{complex}(1,0) + \text{complex}(-1,0))/2. = \text{complex}(0,0) = 0$

This one. It's what all the other flavors of REBIN do.

It's the "compress" form of REBIN that I would be really interested
in, i.e. the ability to sum up loads of complex values.

Craig

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