Subject: Inverse transforming a product of FFTs
Posted by olde_english33 on Thu, 01 Jul 2004 16:22:00 GMT

I have created two arrays of different time series. One is uniformly
random, call it rantime, and the other one is based off of a recorded
set of data values, call it rectime. Consider the following code,
which I have implemented.

```
specrantime=fft(rantime)
specrectime=fft(rectime)
prod=specrantime*specrectime
yt=fft(prod, 1)
```

Now, according to the help files, when you take the forward transform,
the sum is multiplied by 1/N, which in my case is 31. My question is
does taking the back transform of a product of two FFTs, both with 31
variables, lose a factor of 31 when taking the inverse transform?
That is, after I have computed the inverse transform, do I still need
to multiply by a factor of 31 to get the right data out?