

Re: Confused by FFTW output

Source: <http://sci.tech-archive.net/Archive/sci.math.num-analysis/2005-03/0176.html>

From: James Van Buskirk (*not_valid_at_comcast.net*)

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"Tom" <flurboglarf@mailinator.com> wrote in message
news:1110902452.743346.225880@141g2000cwc.googlegroups.com...

```
> ! signal
> do i=1,n
> t=(i-1)*dt-ttot/2
> sig(i)=exp(-a*t*t)
> write(10,*) i,t,sig(i)
> end do
> ! forward FT
```

The symmetry requirement should lead to $\text{sig}(n) == \text{sig}(2)$, because you used 1-based arrays (you could have used 0-based arrays where $\text{sig}(n-1) == \text{sig}(1)$, had you chosen to do so...) Your output to unit 10 doesn't agree with this, so I tried

```
! signal
do i=1,n
  t=(i-1.5)*dt-ttot/2
  sig(i)=exp(-a*t*t)
  write(10,*) i,t,real(sig(i))
end do
! forward FT
```

This has the correct symmetry.

```
--
write(*,*) transfer((/17.392111325966148d0,6.5794487871554595D-85, &
6.0134700243160014d-154/),(/'x'/)); end
```