Subject: Re: Digital filter question
Posted by alps on Fri, 04 Nov 1994 14:25:05 GMT
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In <CypD06.7tD@festival.ed.ac.uk> soc@festival.ed.ac.uk (Stephen O'Connell) writes:

> MEL (larkum@optolab.unibe.ch) wrote:
> : I can't understand description of DIGITAL_FILTER in the PV-Wave
> : manual. I have some data with an annoying 50Hz mains signal that
> : I'd like to try to filter out. The manual talks about the Nyquist
> : Frequency as 1/2T, where T is the time elapsed between data samples.

> : Well, I have data sampled at 20 kHz, so as far as I can tell,
> : the Nyquist frequency for this data is 10 000. Am I right?
> : Now what? (besides read a book on digital signal processing).
> : What should my low and high frequencies be to set a bandpass
> : filter around 50 Hz, expressing them as "fractions of the
> : Nyquist frequency" as "numbers between 0 and 1".

> : Thanks anyone,

> I havent used the routine but I expect your 50Hz is just 50/10000
I he is right, except for the part that .....^^^^^^^^^
should be 50/2*10000 and similary for the bandpass...

> so that the two numbers setting the low and high are 49.5/10000 and
> 50.5/10000 for a bandpass of 1Hz centered on 50Hz..ie 4.95e-3 and
> 5.05e-3

> Hope this helps...
Alps

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