
Subject: Re: Digital filter question

Posted by [SOC](#) on Thu, 03 Nov 1994 17:38:26 GMT

[View Forum Message](#) <> [Reply to Message](#)

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
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...
Rob

: Matthew.

:

: Matthew Larkum
: Physiologisches Institut
: Buehlplatz 5, CH-3012 Bern Switzerland
: Ph. 41 31 658726 Fax. 41 31 654611
: Internet: larkum@optolab.unibe.ch
: matthewl@cortex.physiol.su.OZ.AU
