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                         WAV FILTER
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WAV FILTER is a set of non recursive filters (FIR type-Finite
Impulse Response). This program also includes DFT (Discrete Furrier
Transform - spectral analyse), but you need fast machine to perform DFT
on larger data arrays. Generally, DFT is added as an analysing tool which
helps you to chose filter frequencies. Filter order determents how many
points of input buffer (file) is taken to calculate one output point. Higher
order means higher quality of filtration, but it requires more time.
Extremely high filter orders make sense when you want to perform
extremely narrow band filtration (for example, you have sample 'polluted'
with 50Hz and you want to cut out only very narrow band - for example
from 40 - 60 Hz. In this case you have to set ORDER to at lest 2000 -
4000 (need speedy machine)).

Example DEMO.WAV:

This sample is mix of regular song and whistle. You can separate this
sample in two samples (song and whistle) by using WAV FILTER.
This is the way how to do it:
1. Run WAV FILTER an OPEN DEMO.WAV (file will be to be loaded
in INPUT BUFFER)
2. Play sample by PLAY INPUT BUFF in SOUND menu and try to
determinate where is whistle the most 'obvious'. (Let say this is
at approximately 5th second from the beginning of the file).
3. You have to determinate frequency of whistle. Use DFT in ANALYSE
menu (chose 500-1500 (1500-2000 for fast machines) calculation points
and start position at 5th second (please , if you enter this value in
seconds put '*' as a first character in line)).
4. On the shown graph you can see spectral lines. Each line represents
certain frequency in sample. Resolution is defined by number of
calculation points and is displayed after DFT calculation - 'quantum'.
UNIT is distance between two lines on axe. Now you can determinate
whistle frequency (peek on the right side/middle of DFT graph). Whistle
frequency is approximately 1640 Hz.
5. Now, you can use BAND REJECT FILTER to remove whistle from
sample. Chose filtration band from 1550 to 1750 Hz. Wait and play
output buffer. If you want to 'hear' only whistle chose BAND PASS
FILTER.
6. Try to use also HIGH and LOW pass filter to see the difference.

I hope you will like this program. If you think WAV FILTER is useful
please register and send me $12 + $5 postage and package. If you
think W_FILTER worth less than $12 send me amount you think I deserve (but,
please cover postage and disk costs - $5 (oversees mail)). To receive
source in C send additional $6.

                         THANK YOU!
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