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filter traces

command: FILTER <kind> <trc-list> [<lo-wdw> <hi-wdw>] [<att>]

Filters traces with filters read in previously by a FILI command (kinds 'F' and 'R') or attenuates traces (kind 'A'). All filters of the specified kind (<kind>) in memory are applied sequentially to the traces. If no time window (<lo-wdw>, <hi-wdw>) is specified, the whole traces are filtered. No respect is paid to a globally set time window (see [STW](#)). If <kind> 'A' is selected, the desired attenuation must be passed in parameter <att> (t* in sec).

The result of filtering is displayed in new traces. The input traces remain unchanged.

parameters

- <kind> *parameter type: char*
Kind of filter. Valid values are
 - ◆ 'F' - applies FFT filter, previously read in by a "[FILI F <file>](#)" command
 - ◆ 'T' - applies digital filter, previously read in by a "[FILI T <file>](#)" command
 - ◆ 'R' - applies recursive filter, previously read in by a "[FILI R <file>](#)" command
 - ◆ 'A' - attenuation with t* = <att> sec
 - ◆ 'H' - computes Hilbert transformation
 - ◆ 'M' - computes minimum delay wavelet
 - ◆ 'P' - (undocumented)
- <trc-list> *parameter type: trace list*
Input traces for filtering. These trace remain unchanged. If no time window is entered, all traces are filtered.
- <lo-wdw>, <hi-wdw> *parameter type: real*
Time window on all traces. The filtering of the input traces is restricted to this time window.
- <att> *parameter type: real*
Attenuation (t* in sec). Only valid for <kind> = 'A'.

qualifiers

- /taper=<tapval>
Valid only for FFT and digital filters. Applies a cosine taper to filtered trace in frequency domain. <tapval> ranges from 0.0 to 1.0. Default value is 1.0. The taper is started at sample <tapval>*N if N is the length of the trace in frequency domain. A value of 1.0 and greater means that no taper is applied.
- /demean
(undocumented)
- /lpc
(undocumented)

example

```
filter F ALL  
    filters all traces with the previous read filter in full length
```

```
filter F 1-3 10 110  
    filters traces 1-3 within time window 10..110
```