

ABSTRACTDIGITALLY PROCESSING AND FILTERING SIGNALS

5 A device (10) includes a filter such as a lag filter
for digitally processing and filtering signals used in
industrial control applications. The method provides a
factor which is used by the filter to process the digital
signal at the input (12) to the device (10). The method
10 determines if the change in the input signal is either due
to noise or a valid signal change. Information which gives
a past analysis of the trend in direction of the signal at
the input to the device is used. The trend information
includes a factor representative of the past history of the
15 trend. The method uses the most recent trend indicator to
determine to a reasonable degree of confidence if the
signal currently at the input to the device is or is not
characteristic of noise. If the signal is not considered
to be characteristic of noise, then the method adjusts the
20 trend indicator by a tracking credit. The tracking credit
is, in effect, a further degree of confidence that change
in the input signal is not characteristic of noise.

Figure 1

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