

Process Filters

Filters, you recall, are programs that read from standard input, and which write to standard output. Filters may change, use, or learn about the characters flowing through your program. Two kinds of filter programs are **process** filters and **state** filters.



- A process filter **does something to** the characters it encounters.
- A state filter **learns something about** the stream by examining characters.

Process filters **apply some basic rule**—the process—to the values in the stream. The simplest process filter is: **read and echo** (although I suppose that read and ignore would actually be simpler). That's what the **cat** filter does.

Process filters typically solve problems like this:

- Copy files or search for a particular value in a stream (**cp** and **grep**)
- Case modification or changing character order in a stream.
- Stream editing using a sequence of editing commands (**sed**)
- Translating data from one form to another (decimal to binary)



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