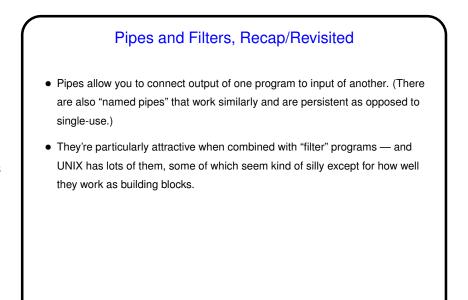


Minute Essay From Last Lecture
Some people had made changes to their .bashrc files, some for specific courses (no surprise).
A people had made additions on their own. Interesting how in this course people come in with very different backgrounds, some knowing quite a bit more than others. "It's all good"?
Some weren't quite sure! To find out, compare to /etc/skel/.bashrc.

Slide 2

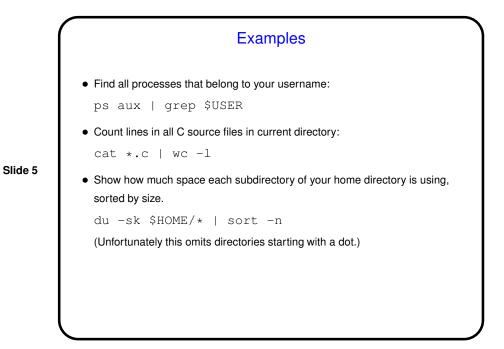
## 1



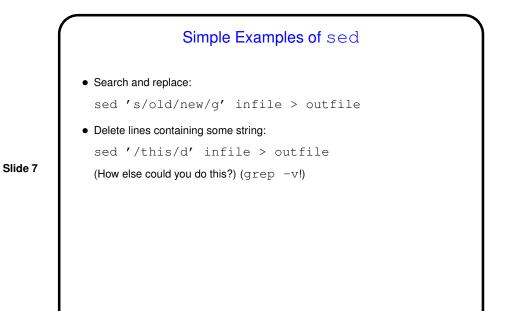
## Some Filters head, tail get first or last N lines. sort sorts, uniq discards (consecutive) duplicates. grep searches for text (or regular expression — more later). (Name is from very old editor, where g/re/p meant "globally search for regular expression and print".) wc counts characters, words, lines. tr "translates". Good for converting, e.g., upper-case to lower-case. cat "concatenates" one or more inputs to output. tee duplicates input. Good for capturing output to a file while also displaying it onscreen.

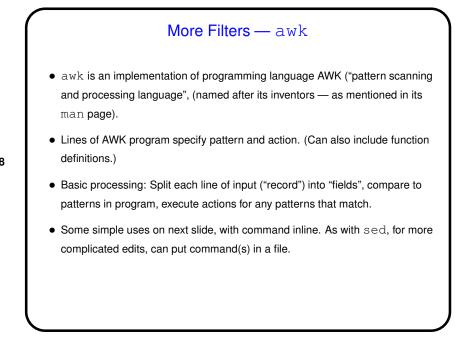
Slide 4

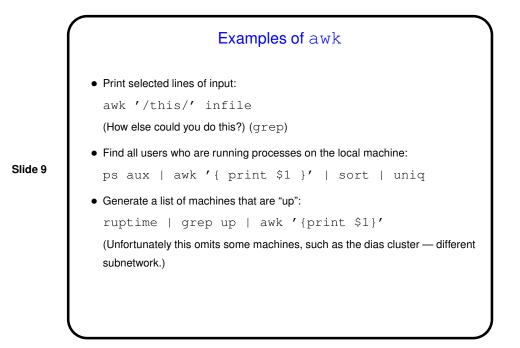
 $\mathbf{2}$ 

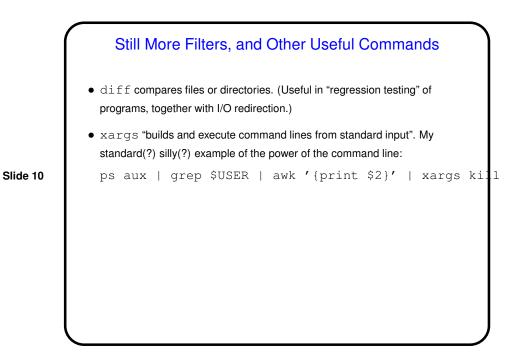


More Filters — sed
sed ("stream editor") is a non-interactive editor. By default does *not* edit in place, but works as a filter, transforming input to produce output. Especially useful with regular expressions (later), and in manipulating variables within a command (later).
Some simple uses on next slide, with command inline. For more complicated edits, can put command(s) in a file.

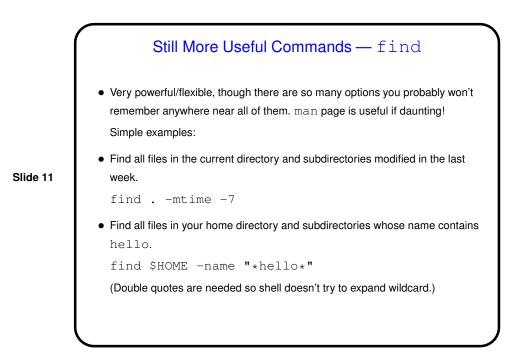








5



find, A Bit More
Summarizing and simplifying a bit from the man page, arguments to find consist of paths, "options", "tests", "actions", and "operators".
Path(s) come first — where you want to search.
"options" are next and apply to whole command, e.g. -maxdepth.
Then there are "tests" (search criteria), "actions" (what you want to do with files that match — default is to print name), and "operators" (such as logical and, or) connecting them.
Examples on next slides ...

Slide 12

## 6

