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Unigroup Events

Thanks to Chase Bank, Unigroup holds regular meetings, generally on the third Thursday of odd-numbered months at 55 Water St., NYC, with special meetings at PC Expo and Unix Expo. Upcoming meeting dates are: week of 9/14 (probably at Unix Expo), 11/19.

this month's meeting topic:
to be announced

Or, checkout our web site
http://www.unigroup.org/unigroup

Unigroup General Information

For general information, to get on the Unigroup electronic mailing list, or to change address, send email to *unilist@unigroup.org* or send mail to the post office box listed above.

Directions to 55 Water Street

Unigroup meetings are held at 55 Water St., which is located in lower Manhattan on Water St. at Old Slip, near Wall St. Enter 55 Water St. at the Old Slip entrance. Transit: Take the #4 train to Bowling Green, the #2 or #3 to Wall St., the M or J to Broad St. or the N or R to Whitehall St. If you come by car, parking is generally available on the street. However, there is a parking garage in the building.

Yearly Membership Fees

Yearly Membership	$ 50.00
Student Yearly Membership	$ 20.00

Cash, Check, American Express accepted

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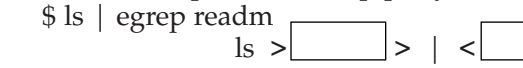
UNIX TIPS

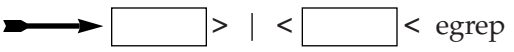
I was teaching a Unix course recently, and the problem of file redirection and the cat command surfaced, as it so often does. Processes can have file streams associated with them, with input (0), output (1), and error (2) being standard. Let's use the egrep command as our example. Egrep reads the file stream known as "standard input" (by default). I haven't encountered anyone who has a problem with redirecting the output of another command to the standard input, with the pipe symbol.

```
$ ls | egrep readm
```




```
$ ls > dir.lis # output of directory listing saved in a file
$ # time passes, directory is now different, but the data persists.
$ cat dir.lis | egrep readme # functionally correct, but inefficient:
$ # this activates the cat program, running in a process.
```

It is generally not necessary to push or kick the stream through the pipe.




```
$ egrep readme < dir.lis # via "input redirection"
$ # egrep readme dir.lis # grep allows filename(s) directly, too —
$ # Question: When the filename syntax is used, what does the kernel
$ # do internally, to connect the process to the file?
```

Cat(1) is rarely needed except for its catenation purpose. Cat works "vertically", paste(1) works "horizontally". In a future installment, we shall look at cat and paste, cat's v option (cat -v), perhaps a case where you do need to cat the file instead of doing file redirection, how to use a stream with file redirection even when the syntax calls for a filename, and more(1).

Double-spacing with sed

The sed 'a' command takes a single address. If no address is given, all lines will be effected. We would like to add one extra line after each line except the last line. '$' is the address of the last line, and the trailing '!' reverses the meaning. The a command appends the string, in this case a newline, escaped (protected) by the backslash, so that it will be inserted into the string.

```
$ PS2='continuation line> '
$ sed '$!a\
continuation line>
continuation line> ' infilename
```

[mes]