

Slide 1

### Administrivia

- Reminder: Homework 7 due today.
- Homework 4 “solution” on Web (really a collection of things mentioned by students this year and previous years).

Slide 2

### “What Command Do I Use To ...”

- Continuing the tour of some commands I have found useful ...
- (The point of this tour is not to present details of any of the commands, just to make you aware they exist, so you can follow up on those that seem useful.)

### Commands for Working with Programs

- `-E` (show preprocessor output) and `-S` (generate assembly-language output) flags on most compilers.
- `gdb` source-level debugger. Semi-graphical version available from within `emacs`.

Slide 3

### Web-Related Commands

- `wget` or `curl` to download a Web page or pages. `wget` has options to allow downloading a page and everything it references.
- `lynx`, `elinks` (a.k.a. `links`), or `w3m` to browse in text mode.  
(What's the difference? Slightly different capabilities. Better help (IMO) in `lynx`, but it doesn't do frames. `elinks` does frames but help isn't (IMO) as useful. I haven't tried `w3m`!)  
(Advantage of these commands is that they're lightweight and ignore some things that make graphical Web browsing annoying. Disadvantage is also that they ignore some things ...)

Slide 4

### Miscellaneous Other Command(s)

Slide 5

- `time` to run a command and say how long it took. (Actually there's often more than one thing by this name, e.g., a shell built-in and also a command. Access the latter with a full path name or by preceding the name with a backslash (in `bash` anyway).)
- `top` monitors performance in realtime.

### (Mostly-)Text-Mode Plotting (`gnuplot`)

Slide 6

- Usually run in graphical mode, but interface is text-only. Help available from within program by typing `help`. (Help is modeled after online help on VAX VMS operating system, and is — different.)
- Can also be run in batch mode — e.g., if you want to be able to easily regenerate plots when data changes.
- Nice for  $\text{\LaTeX}$  users because it can produce output in various  $\text{\LaTeX}$ -friendly formats (including ones that allow final typesetting to use same fonts as document).
- Examples linked from “Sample programs” page ([here](#)).

## Minute Essay

Slide 7

- Any favorite tools that seem to fit with this lecture, but that I forgot to mention?
- Any “how do I do this?” questions that also fit but that I didn’t talk about?  
Other topics I plan to talk a little about are e-mail and X/GUI stuff. I also will talk a little more about `make`, by request, and I have some “more about `vim`” slides.
- Any other topics you want to hear about? I’m thinking a lecture on mail and one on X/GUIs next week, and after that ... ?  
Some possibilities: CGI scripting, installing software, more about previous topics (e.g., shell scripts), a little about Perl.
- (Okay to think about this one and send me mail later. Just don’t forget!)