## Administrivia

- Due date for project proposal moved to Monday after holiday. (I'm hoping to talk about Perl next time, and that *might* change your ideas about a project.)

**Slide 1**

## A Little about CGI

- What's CGI? "Common Gateway Interface" — protocol for communicating between Web forms and (your) programs.

- Programs can be in any language that can read from stdin, write to stdout, and read environment variables.

- May require some setup/configuration in Web server. More information in tutorials linked from "Useful links" page (here).

- Notice that there are security implications — you're potentially letting anyone with a Web browser execute these programs on whatever computer is serving the Web pages. No problem if they're harmless, but "be careful"?

**Slide 2**

## CGI "Scripts"

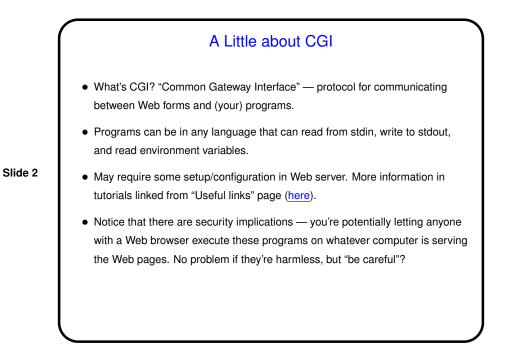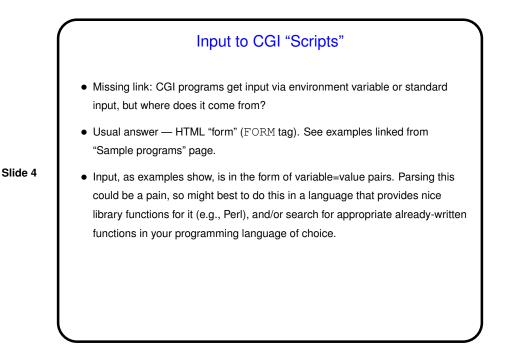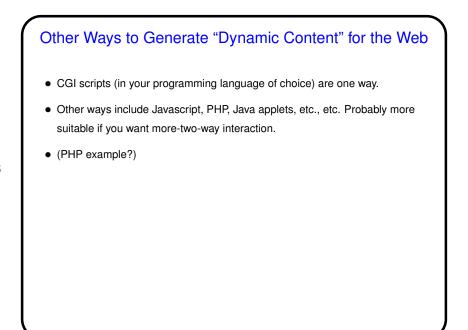**Slide 3**

- Input is one long string of name-value pairs, either from an environment variable or from stdin. (More about this in next slide.)

- Output begins with a single line giving content type, e.g.:

  `Content-type: text/plain` or

  `Content-type: text/html`

  followed by a blank line.

  After that, it can be anything appropriate for the content type.

- See `print*` examples from class, linked from "Sample programs" page.

## Input to CGI "Scripts"

**Slide 4**

- Missing link: CGI programs get input via environment variable or standard input, but where does it come from?

- Usual answer — HTML "form" (`FORM` tag). See examples linked from "Sample programs" page.

- Input, as examples show, is in the form of variable=value pairs. Parsing this could be a pain, so might best to do this in a language that provides nice library functions for it (e.g., Perl), and/or search for appropriate already-written functions in your programming language of choice.

## Other Ways to Generate "Dynamic Content" for the Web

- CGI scripts (in your programming language of choice) are one way.

- Other ways include Javascript, PHP, Java applets, etc., etc. Probably more suitable if you want more-two-way interaction.

- (PHP example?)

**Slide 5**

## Minute Essay

- Have you written "dynamic content" Web pages? using what?

**Slide 6**