

## Lesson 6 Outline – Common Tasks

When writing CGI scripts, there are certain tasks that are done again and again. Some are unique to CGI scripts, and others are just basic programming tasks that have unique applications in the CGI realm.

- I. Perl Tasks
  - a. Time & date
  - b. Reading & writing data files
    1. File locking is very important here; you can have many simultaneous accesses to your data files when running a CGI script
    2. Flock() is not available on all systems (see additional resources for more information on these cases)
  - c. Searching & Sorting
    1. This is referring mostly to simple data manipulation, site search engines are a different animal
    2. There are two main approaches to programming search engine CGIs
      - a. Brute force: open every text file on your server and search for a particular string
      - b. Indexed search: Run a program to “index” the site, i.e. create a database describing key words for each text file in order to speed the actual searches (which are run from a separate CGI)
  - d. String manipulation
    1. One of perl’s strengths
    2. Remember that you can use qq! ... !; or similar syntax to quote strings – very useful when printing HTML from your script
  - e. Randomness (ex. rotating ads)
  - f. Sending email
    1. One of the most common CGI tasks
    2. Sendmail is the preferred method on UNIX systems
      - a. use the -t flag to specify the proper headers
      - b. use the -n flag to disable address aliasing on the server (for security reasons)
      - c. -odb is often used to schedule background delivery; this means the script doesn’t have to wait for the email to be sent, however it may also mean that the mail is not sent until much later
    3. Sendmail is often not available on NT systems; instead you must use Blat, WinMail, direct interface to SMTP, or something similar (see additional resources for more information on these cases)
  - d. Regular expressions
    1. Very useful for checking format of input data (ex. email addresses)
    2. Commonly used to decode and parse input data
- II. CGI-specific functions
  - A. Redirection
    1. Different content type header returned by script
    2. Often used for “thank you” page
    3. This is different than setting up redirection in the htaccess file (which is global, server level redirection); what we’re talking about here is having the script redirect to a different URL based on the input to the script
  - B. Multi-part forms
    1. Use hidden fields to pass state information
    2. Can be many scripts joined together or one script called with different parameters each time
    3. CGI.pm allows you to do this very easily