

FILES IN C

CSSE 120—Rose Hulman Institute of Technology

Final Exam Facts

- **Date:** Monday, May 19, 2008
- **Time:** 6:00 to 10:00 PM
- **Venue:** A219
- **Chapters:** Zelle chapters 1 to 12 & C material (Angel → Course Resources → C Programming)
- **Organization:** A paper part and a **computer part (in C only)**, just as on the first 2 exams.
 - ▣ Computer access allowed for both parts of the exam since no C text

File handling

- Need to include `<stdlib.h>` to access many file handling functions and macros
- Open a file using **fopen()**
- Modes:
 - “r” (read)
 - “w” (write)
 - “a” (append)
- Returns a file pointer to access the file: **FILE***
- Close a file using **fclose()**

A simple example

```
FILE *my_fileptr;
```

```
my_fileptr = fopen("my_file.txt", "r");
```

```
if (my_fileptr == NULL){
```

```
    exit(EXIT_FAILURE);
```

```
}
```

```
// Read data from the file pointed to by my_fileptr
```

```
fclose(my_fileptr );
```

How do we read from a file?

- `getc(my_fileptr) ;` `/* read the next character
from the file*/`
- `fgets(buffer, n, my_fileptr);`
`/* read the next line of text
from file, up to n-1 chars,
into buffer */`
- `fscanf(my_fileptr, "%d", &num);`
`/* read the next int value
from file into variable
num*/`

How do we write to a file?

- `putc(c, my_fileptr) ;` `/* Converts int c to a char and write it to file */`
- `fputs(my_string, my_fileptr);`
`/* Copies my_string to file, except the string terminating char */`
- `fprintf(my_fileptr, "%s\n", my_string) ;`
`/* Similar to printf() except the first parameter is a file pointer */`

File Handling

- Check out **FileDemo** from your SVN repo
- See problem description in comments
- Work on solving problem for 10 minutes

Homework 29 (and last!)

- See instructions linked from ANGEL
- Due Friday at 11:59 PM
- Work time in class today and during session 30