

# ort Program 1: Low level fgets()/fputs()

Due: Friday, Jan 27 at 11:59 pm

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## Overview

In this assignment you are to write two functions which duplicate the actions of the *fgets()* and *fputs()* standard library functions but **use ONLY the low level I/O functions *read()* and *write()***. Your functions *must* be named *reads()* and *writes()*

The standard library *fgets(char \*s, int size, FILE \*stream)* function reads in at most one less than *size* characters from stream and stores them into the buffer pointed to by *s*. Reading stops after an EOF or a newline. If a newline is read, it is stored into the buffer. A `\0` is stored after the last character in the buffer. *fgets()* returns the number of bytes read including the newline but not including the `\0`.

The standard library *fputs(char \*s, FILE \*stream)* writes the string *s* to *stream*, without its trailing `\0`. *fputs()* returns the number of bytes written.

```
#include <fcntl.h>
#include <sys/stat.h>
#include <errno.h>

int reads(
char *buffer, /* pointer to buffer */
int bufsize, /* buffer capacity */
int fdnx) /* low level fd index (0 - stdin) */
{
}

int writes(
char *buffer, /* pointer to NULL terminated string */
int fdnx) /* low level fd indxe (1 - stdout) */
{
}
```

## How to submit your program:

**NOTE:** This procedure has NOTHING in common with "handin" nor "sendlab"  
Do NOT even TRY to think about how they fit into this procedure because  
THEY DON'T!!

<<<Do NOT turn in any image files, core files, makefiles etc.>>>

You must turn in 1 file: sp1.c

1. From any departmental Solaris system *ssh* to workstation *jmw*
2. The submission directories lie in the directory `/local/jmw2/322/sp1` which is available ONLY IF YOU HAVE LOGGED INTO WORKSTATION *jmw*. Each student has a subdirectory of `/local/jmw2/322/sp1`. The name of your subdirectory is your userid (in the example we will assume your id is *wjsmith*).
3. copy (via the `cp` command) required file to your subdirectory in `/local/jmw2/322/sp1`

For example:

```
cp /home/wjsmith/322/sp1/sp1*.c /local/jmw2/322/sp1/wjsmith
```

Here you would (hopefully) obviously need to replace  
`/home/wjsmith/322/sp1/sp1.c`  
with wherever you have your program.

4. Don't modify the permissions on your subdirectory. They are set so that ONLY you can access your directory.

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After you think you have turned your programs in, its a good idea to  
`cd /local/jmw2/322/sp1/wjsmith`  
and make sure your files are there and they still compile and work correctly.