

## C PROGRAMMING: WRITING TO A FILE

Many times it is important to save the data a program produces by writing it to a file instead of to the screen. To do this one declares a file type, opens it, uses `fprintf` instead of `printf` and then closes the file.

```
/* This is a program to print out the first 10 non-negative even integers */
/* and write them to a file. */
/* NOTES: The pointer to the output filename must be declared. */
/* FILE needs to be capitalized in that declaration. */
/* fileout=fopen("myfilename","w"); opens file called myfilename */
/* fclose(fileout); closes the file */
/* stdout prints to the screen in fprintf */
/* fileout prints to myfilename in fprintf */
#include <stdio.h>
#include <math.h>
int main(void)
{
    int j;
    FILE * fileout;
    fileout=fopen("myfilename","w");
    for (j=0; j<20; j=j+2)
    {
        fprintf(stdout,"\n%i",j);
        fprintf(fileout,"\n%i",j);
    }
    fprintf(stdout,"\n");
    fprintf(fileout,"\n");
    fclose(fileout);
    return 0;
}
```

Comments:

[1] You can use anything you like for `myfilename`. That is, the name of the file is entirely up to you.

[2] You can still print to the screen with `fprintf` if you like. You simply use `stdout` as the first argument as in the program on page one. So our program actually prints to a file *and* also to the screen.