

## Lab 7.3.8.3 File operations: part 3

### Objectives

Familiarize the student with:

- Working with files
- Reading from a file
- Writing to a file

### Scenario

Write a program that will copy a file. However, if there is a destination file, then the program should try to create a new file (with a new file name) until the moment a destination file has been created. Remember to close both files. Note: in a real program, it's important to check whether all the files needed actually exist and that you can create a copy. In our program, you should at least check that both files have been successfully opened. If the *fopen* function for the source file fails, then the program should print the message "Error opening file." and end the program. If the process of creating a file fails, then you should change the name of the destination file. You can append an integer number to the old file name. Think about a limit on the number of attempts to create a file (it depends on your operating system and, of course, on the specific needs of your program). If you create too many files, it could be hard to use a directory that contains these files. If your program has reached this limit, then it should print the message: "File count limit reached." and end the program.

```
#include <stdio.h>

int main()
{
    /* your code */
    return 0;
}
```

### Example output

Copy of the source file with the new file name.