## **IMPORTANT COMMENTS:**

- In ENHANCED VERSION, the right version is in the folder VERSION FINAL
- As we have worked always together, if you do "svn log" there are more commits from 100384122 than the others, but everybody has worked the same in this project. This has happened due to the constant problems when updating/committing the svn.
- CRTL-D: when you want to exit the program and the terminal say you "Do you want to save the collection: YES/NO", pressing CTRL-D means "NO".
- Arguments bitonal: we haven't taking account the "," in the arguments, our arguments for bitonal must be: addop id bitonal Rdark Gdark Bdark Rlight Glight Blight umbral.
- There are three inevitable frees from the child. One is from nodo->name, other from nodo and the last one from the struct options \*opt (declared in enhanced.h).

## **REPORT:**

- 1) We have implemented of the BMP version:
  - Mandatory operations: histogram, grayscale, bitonal and rotate.
  - Optional operations: only one, black and white and mirror.

We have considered when the arguments of the operations are wrong written, the menu will be printed again, inside the case of operations it doesn't ask you again for the operation.

## 2) We have implemented of the **Concurrent version**:

Everything is implemented. We have created two communication channels in order to read and write the string of the operations and arguments, and the error.

## 3) We have implemented of the **Enhanced version**:

- The collection can be sorted by id, name, size or last modifications.
- > The program accepts command line arguments.
- The program accepts complex orders (not get\_number).
- ➤ The signal SIGTSTP is not implemented, **only declared**.
- The signals SIGINT and SIGUSR1 are implemented. In order to send the signal SIGUSR1 to the parent process, the program must not be executed with Valgrind, because the Valgrind processes get in conflict with the parent process.
- ➤ Persistance file is more or less implemented. The user can configurate the file where the collection is initially loaded and the file where the collection is saved when CTRLD is pressed. Also, by configuring the —no-save, the program does not ask for saving the collection in a file in CTRLD. Also, the contradictions in the commands are managed.