

GNU Make File

Description:

This tool shall automate the compilation process and the linking process and visualize the progress of the build process kind of progress bar, this tool contains 3 main scripts:

- 1) Batch scripts to read the progress and increment the value of the progress.
- 2) Python scripts to read the progress value from a text file and draw the progress in a bar.
- 3) make file to automate the build process.

This Make file contains 6 main recipes:

`depend`: This recipe shall generate the dependencies files.

`onlyCompile`: This recipe shall generate the object files.

`link`: This recipe shall link all object files and generate the executable files.

`clean`: This recipe shall remove all generated files (dependencies, object files and executable files).

`all`: This recipe shall generate the dependencies files, object files and link all object files then generate all executable files.

`Dependencies`: This recipe shall create a directory to contain all the dependencies files.

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Output from command window

```

D:\ITI\Tooling\FinalProject3>make all
[=====] _pycache_ AngrySpeaker Dependencies FastPrinter ] 8%
[=====] _pycache_ AngrySpeaker Dependencies FastPrinter ] 15%
[=====] _pycache_ AngrySpeaker Dependencies FastPrinter ] 23%
[=====] _pycache_ AngrySpeaker Dependencies FastPrinter ] 31%
[=====] _pycache_ AngrySpeaker Dependencies FastPrinter ] 38%
[=====] _pycache_ AngrySpeaker Dependencies FastPrinter ] 46%
make[1]: Entering directory `D:/ITI/Tooling/FinalProject3'
main.c: In function 'main':
main.c:25:3: warning: "/*" within comment [-Wcomment]
/* to test gcc warnings */
^
make[1]: Leaving directory `D:/ITI/Tooling/FinalProject3'
D:\ITI\Tooling\FinalProject3>

```

Figure 1 Output of the make all recipe in command window

Integration with eclipse:

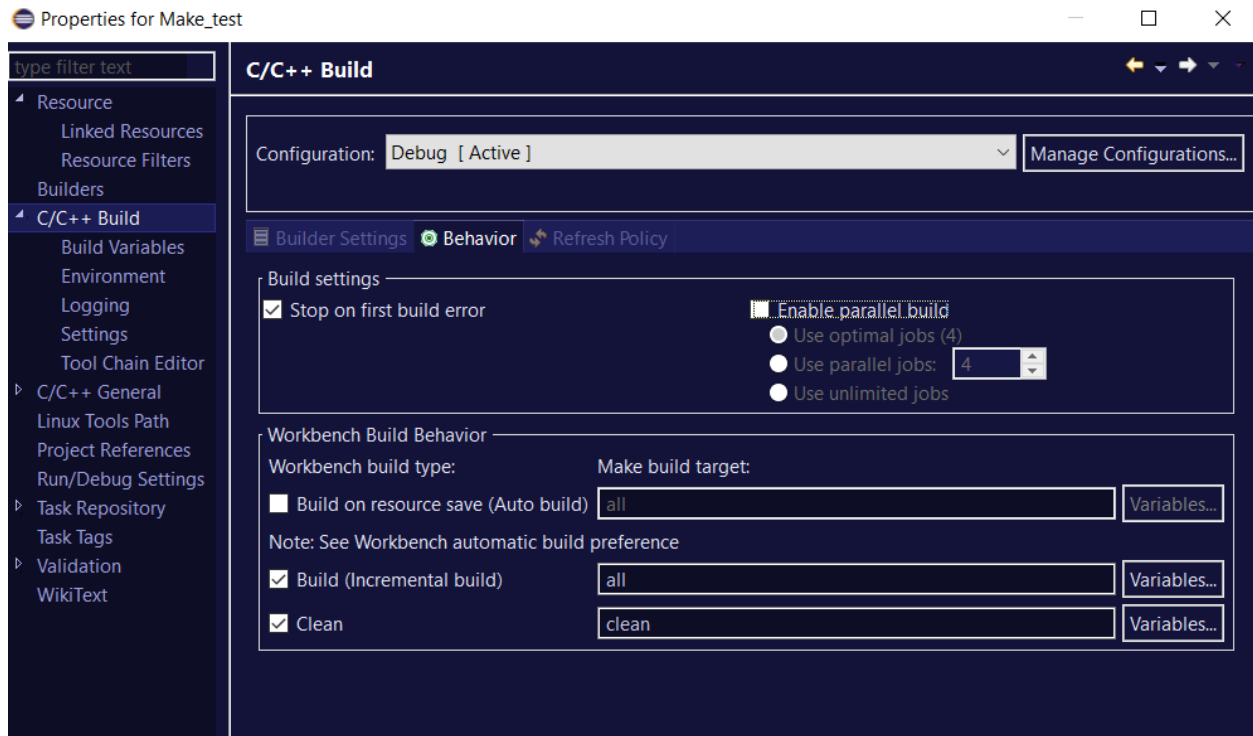
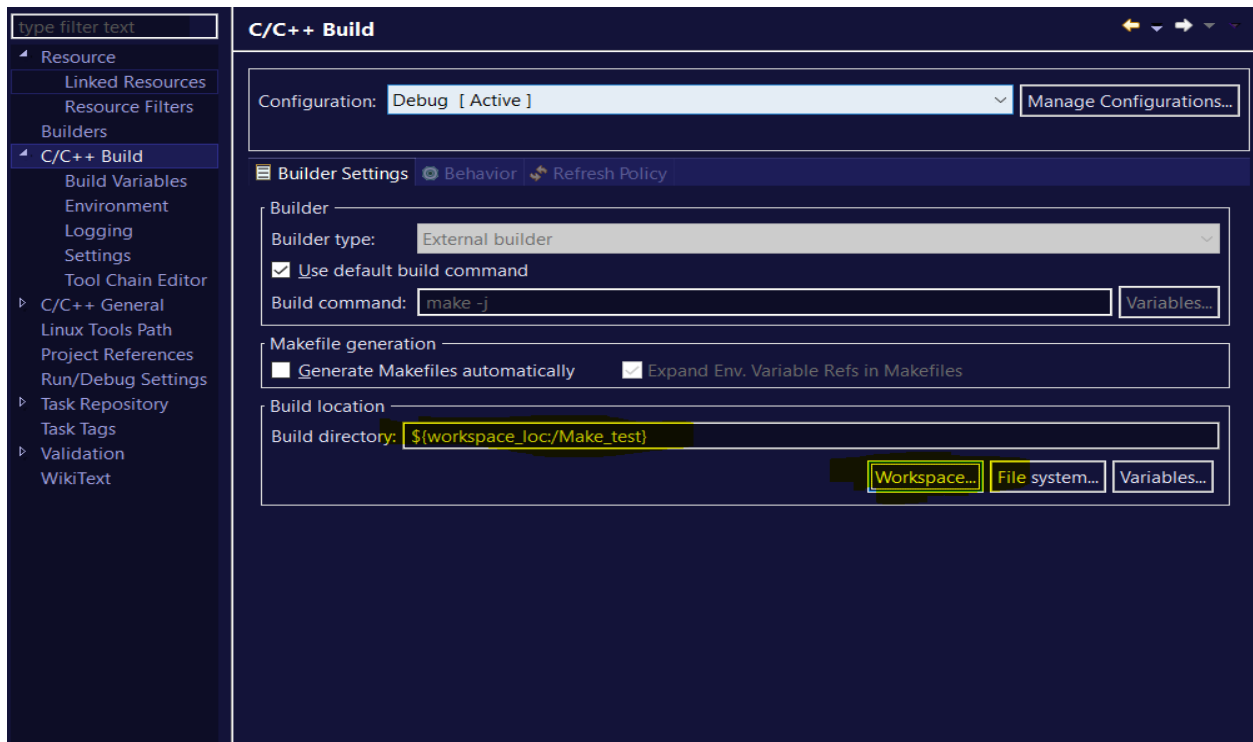


Figure 2 Disabl e paralld build and configure the workbench builder Behaviour

Figure 3 configure C/C++ Build options chose the current workplace



Configure the error parser

Add pattern to error and pattern to the warning

- Error expression -> `(.+):(\d+):\d+: error: (.+)`
- Warning expression -> `(.+):(\d+):\d+: warning: (.+)`

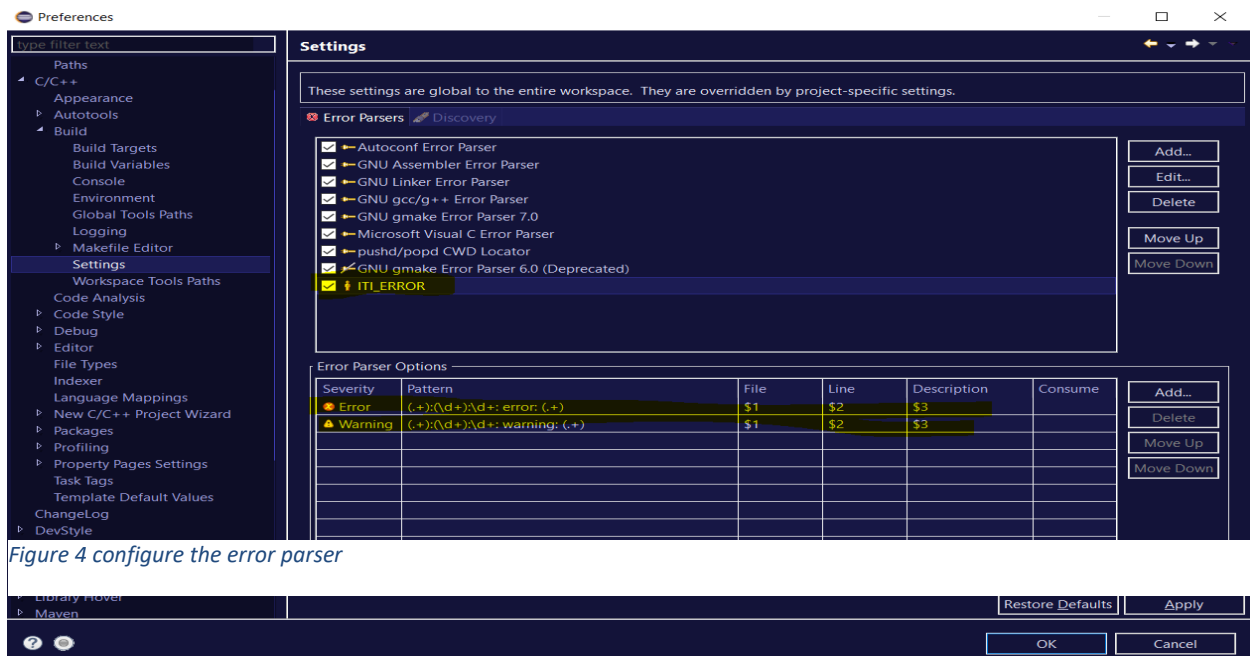
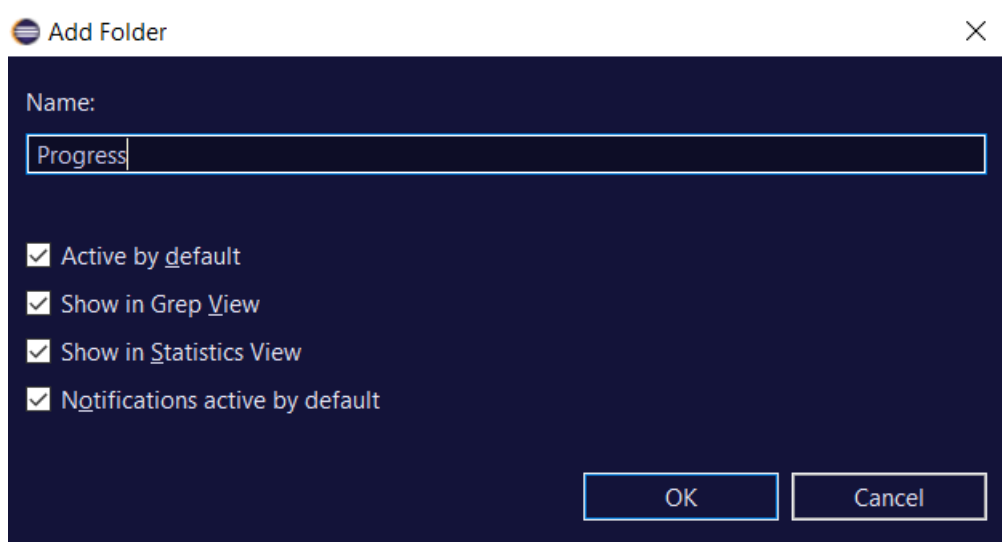


Figure 4 configure the error parser

Configure the grep console

- 1) Add new folder and configure it as shown picture



2) Add Expression -> `\[(\S*).*\]\s(\d+%)`

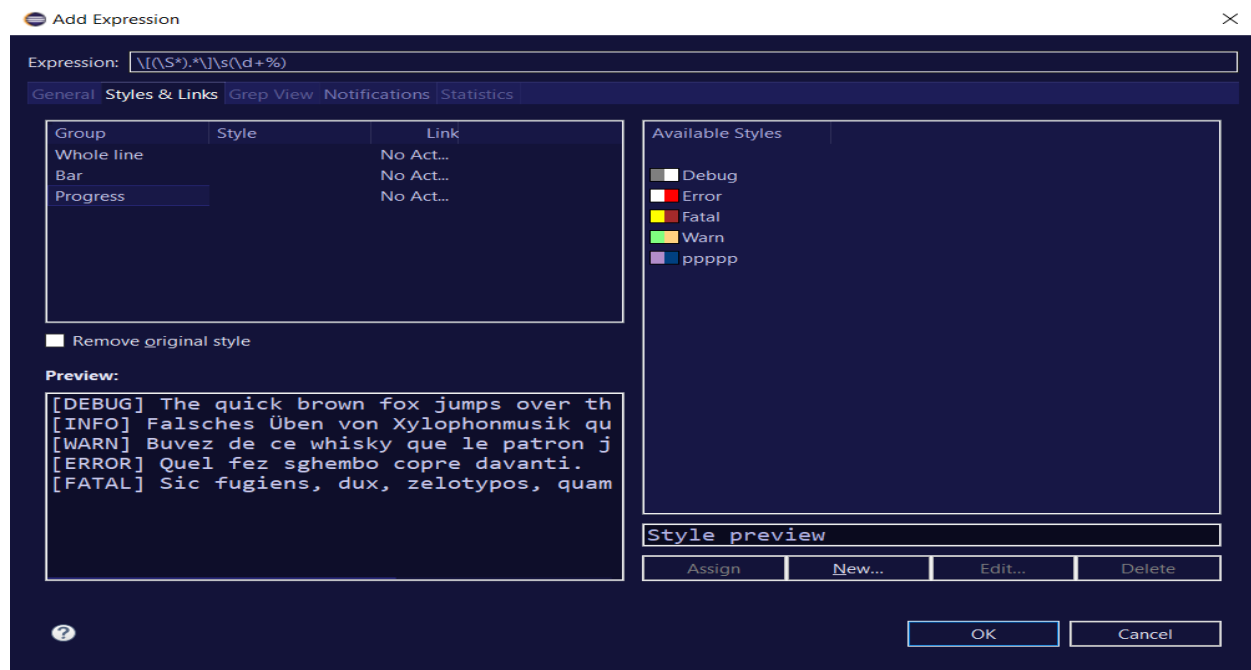


Figure 5 Add expression in the grep view

Add styles to the bar and the percentage

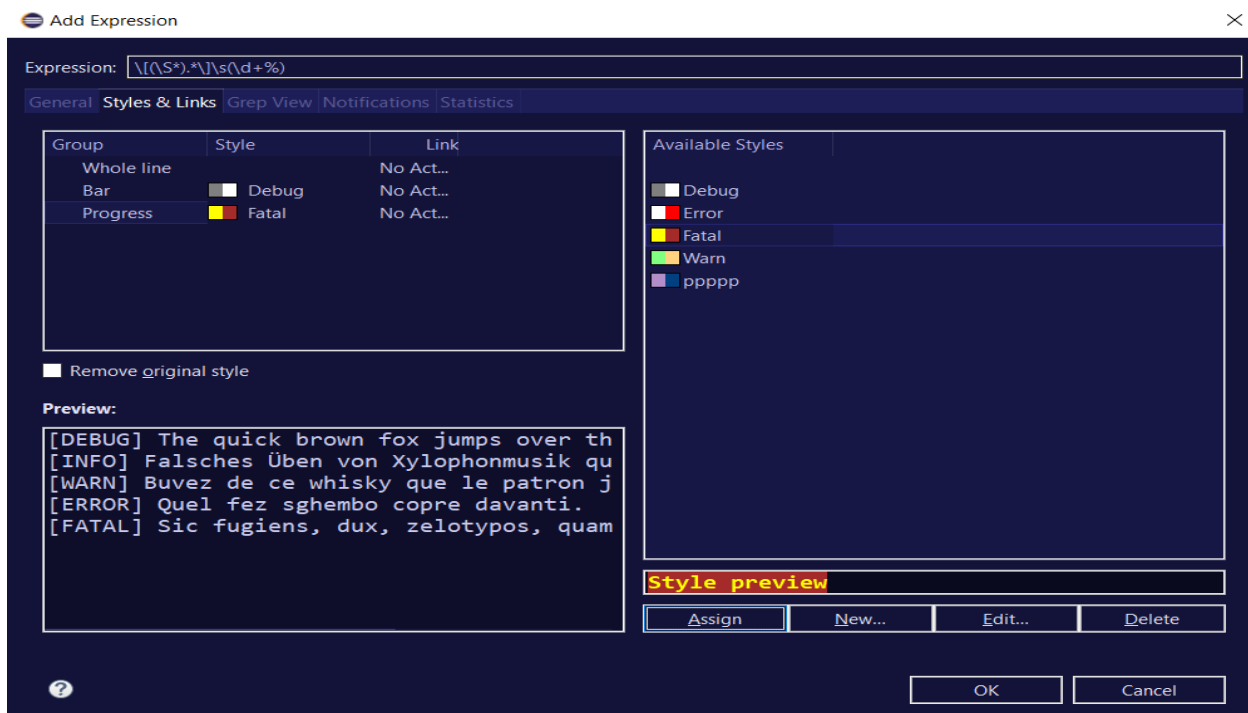


Figure 6 Add style to the bar and the percentage

3) Assign styles to the bar and the percentage as the following picture

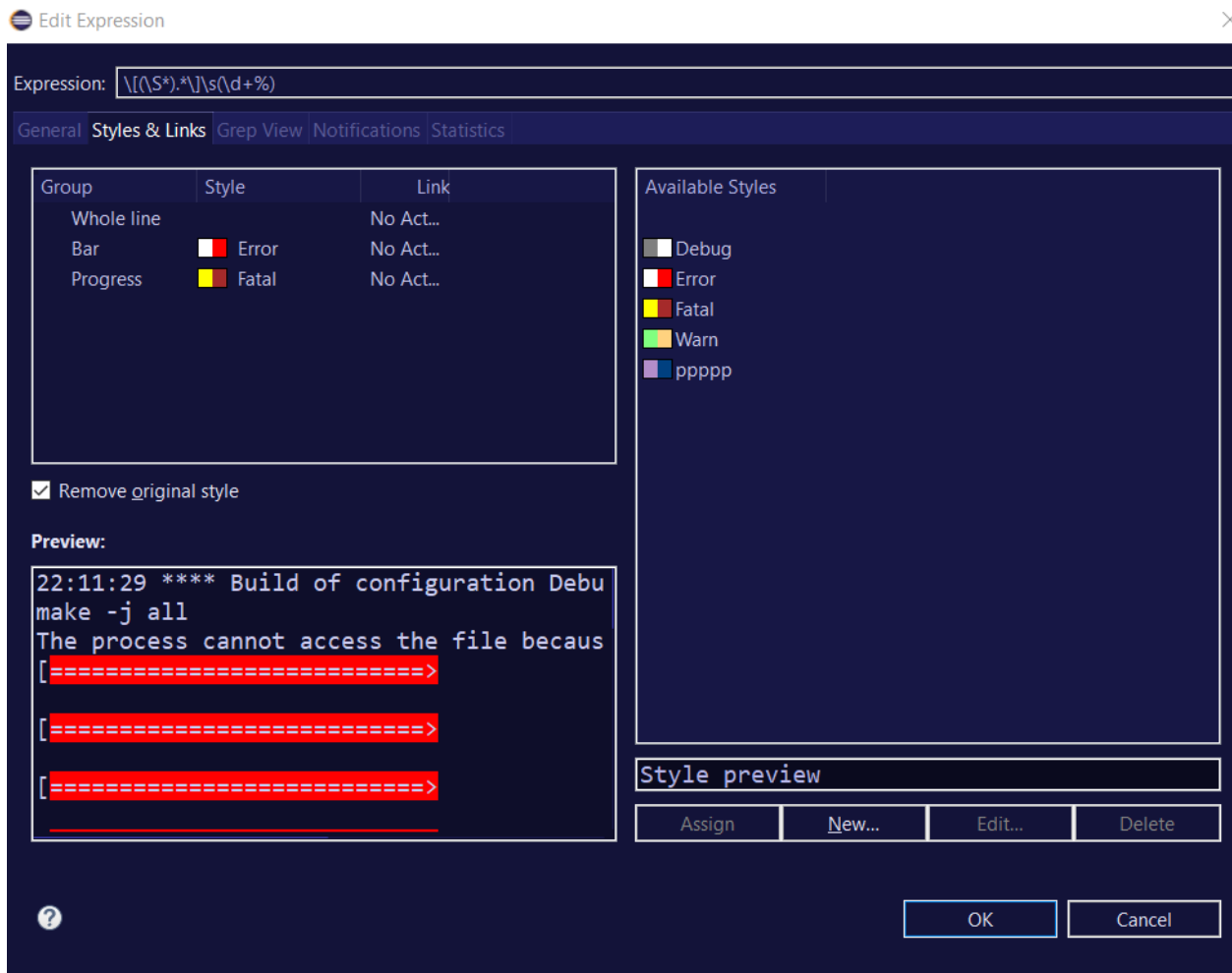


Figure 7 assign style to the bar and the percentage

Output Pictures from eclipse

- Errors and warning in Eclipse

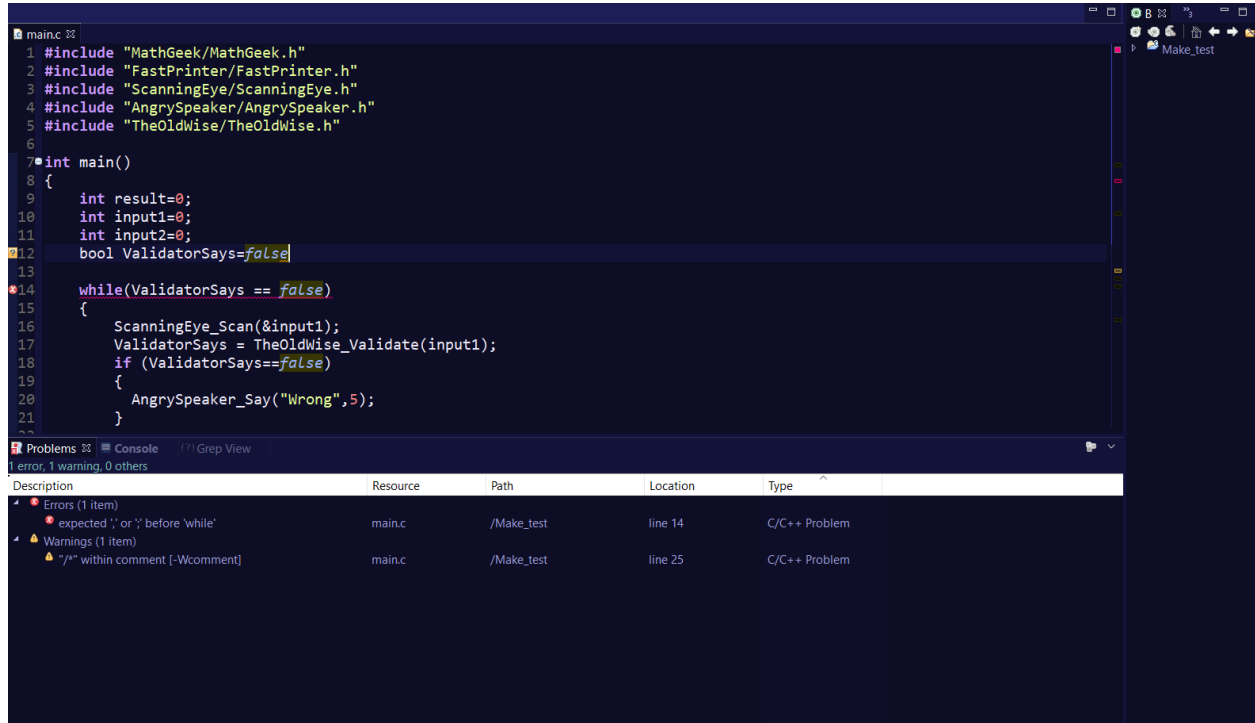


Figure 8 Errors and warning in Eclipse

- The Output of the grep view as the following picture

Figure 9 Grep view Output

