

labo03 - Enigma

Contributors

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Language

English

Naming Conventions

- Variables: camelCase
- Functions: camelCase
- Constants: SCREAMING_SNAKE_CASE
- Type alias: PascalCase

Compilation

1. Create directory "builds" in the project root and go inside it
2. run `cmake ..` (or `cmake .. -D DEBUG=1` for debug)
3. run `make` to compile the project

the binary will be created in {root_folder}/bin

Documentation

Using doxygen and dot graphiz

```
sudo apt-get -y install doxygen texlive-latex-recommended texlive-pictures  
texlive-latex-extra
```

in the root folder:

```
cd doc && mkdir -p doxy && doxygen Doxyfile && make -C doxy/latex && cp  
doxy/latex/refman.pdf doc.pdf
```

Usage

```
Enigma enigma (REFLECTOR_B, {  
    Rotor(ROTOR_I).setInitialRotation('C'),  
    ROTOR_II,  
    ROTOR_III  
});  
  
enigma.reset(); // To set all rotors to their initial rotation  
  
std::string encrypted = enigma.encrypt("my message");
```

NB:

1. pre-existing rotors and reflectors are const and meant to be copied.
2. the machine handle lowercase as well as uppercase, other characters are ignored