

Header files

Derrick

Header file

- **.h** extension.
- Contains C function prototype and macro definitions to be shared between several source files.
- Two types of header files
 - The files that come with your compiler `#include <stdio.h>`
 - Your header files `#include "libc.h"`
- You don't need to compile header files. (more [#1](#), [#2](#))

Preprocessor

- Output preprocessed file: `gcc -E -C -P source.c`
 - `-E` : preprocessing
 - `-C` : do not discard comments
 - `-P` : no linemarkers in the output file
- `gcc -E -C -P source.c > textfile`
 - `>` : redirect output

Parameterized Macros

- One of the powerful functions of the CPP is the ability to simulate functions using parameterized macros.

```
int square(int x)
{
    return x * x;
}
```

We can rewrite above the code using macro as follows -

```
#define SQUARE(x) ((x) * (x))
```

Example

Demo

Resources

- <https://gcc.gnu.org/onlinedocs/gcc/Preprocessor-Options.html#Preprocessor-Options> (gcc preprocessor options)
- https://www.tutorialspoint.com/cprogramming/c_preprocessors.htm