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 "libvc.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

Include guards (no double inclusion)

```
#ifndef VC_HEADER_H

#define VC_HEADER_H



/* contents */



#endif
```

https://en.wikipedia.org/wiki/Include_guard

Resources

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