

Tutorial

Tutorial_1

cppreference.com内容丰富

IDE

- Use Qt Creator to write code (recommended)
- but use VSC to configuration (super recommended)
- Visual Studio, CLion (not recommended)
- 汇编器在编译器里面。汇编器作用assembly -> machine code

compiler

- GNU gcc (recommended)
 - MinGW是移植Linux的
 - 过于老旧，屎山导致运行时候可能有未知问题
- LLVM Clang (highly recommended)
 - 操作友好
 - 报错友好，会更详细
- MSVC
 - 包含在Visual Studio中
 - 前端用qt，后端用Visual Studio也是不错的选择

Build system构建系统

在构建系统出来前，批处理需要写在shell脚本中运行。是吃力不讨好的

- GNU Make
 - 老旧
- CMake
 - 改进语法，加入oop特性
- Meson
 - 基于python开发的，使用简单
- 推荐用 CMake 和 Meson

String

两种风格

C style (char array)

```
char c[2] = {'h','i','\0'}; // \0 is necessary. in c++ style, we won't make sure
it will automatic have one.
char *c = "hi";
```

C ++ style std::string

```
include<string>
std::string s = "hi"
```

与string相关的库

```
<cctype>(ctype.h)
<cstring>(string.h)
```

Practices

Palindrome

Acronym

integer or string

iostream

Run code via command line

- server do not have GUI
- also command line is efficient
- make file in current project

```
vim test.cpp
clang++ test.cpp -o test
./test
```

to exit program `ctrl ^ C`