Data Structure Assignment 3
Open Source的使用 Guide

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January 6, 2023

1 System architecture

Compiler：Visual Studio Code
Version: 1.74.0
OS: Windows_NT x64 10.0.22000

Building environment：Windows 10 Linux Subsystem(WSL2)
Release: Ubuntu 20.04 LTS
Kernel: Linus 5.10.16.3-microsoft-standard-WSL2

Extensions
gcc version：9.3.0
gdb version：9.2
git version：2.25.1

2 Build Guide

Arithemtic coding使用CMake與Makefile編譯程式。
Huffman coding使用Makefile編譯程式。

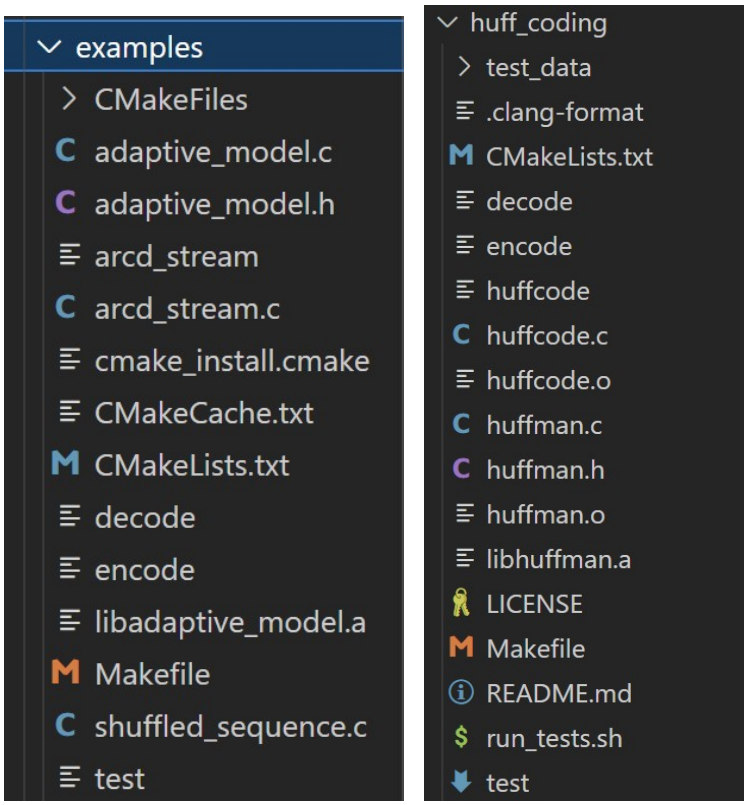

Figure 1: Result of Makefile

3 Execute Guide

本次測試文件為網路上隨機生成之短文，含空格共336字元(無換行)，全文如下：

```
The system should not require more than a few days of supervision to
learn. It should be usable on modestly priced computer systems. Most
of all, it should be simple and convenient for the users. The current
system is not meeting business objectives because they are not able to
tracks the servicing of the vehicles at Huffman Trucking.
```

Figure 2: test file

下圖為Arithemtic coding的運行結果，詳細指令請見README。

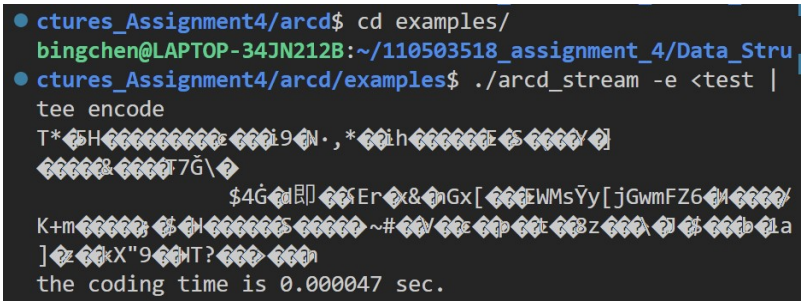

Figure 3: Arithemtic Encoding

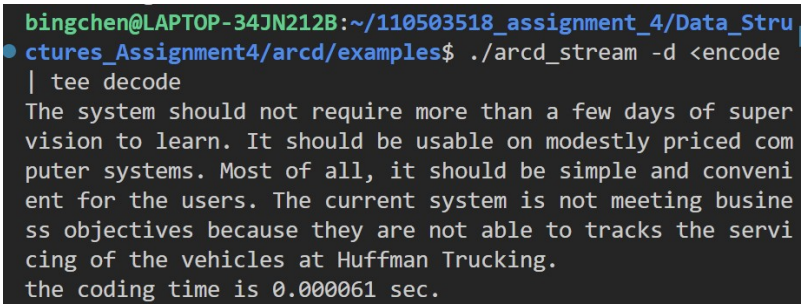

Figure 4: Arithemtic Decoding

下圖為Huffman coding的運行結果，詳細指令請見README。

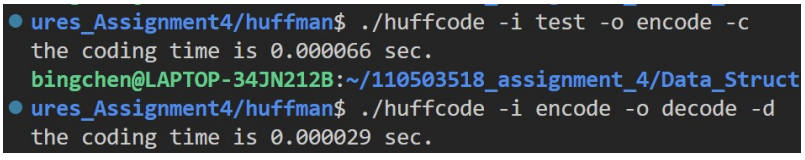

Figure 5: Huffman Encoding and Decoding