

Programming Homework - Jpeg Decoder SPEC

Basic Requirement :

1. Implement a JPEG baseline (sequential DCT-based) decoder.
2. Correctly decode the assigned “.jpg” images into “.bmp” images.
3. Language : C/C++
4. Do not use any external libraries, except writing to BMP files.
5. Please write comment in the source codes.
6. Submitted package **must** include :
 - (1) Source codes
 - (2) README which indicates how to compile and run your code.
In your README file, at least, you should provide your environment, gcc version and so on.
Please not use .doc or .docx.
 - (3) (optional) Makefile so that we can compile with “make”.
 - (4) (optional) We expect we can execute the code as “./main input_file”.

Bonus :

1. Implement a JPEG baseline encoder.
2. Support other JPEG modes, e.g., progressive mode.
3. Provide a user friendly GUI.
4. Any practical improvement.
5. Others.

Note :

1. Slow decoding time will get some penalties, expect realtime.
2. Virus-infected package will get **0**.
3. The file name formate should be : StudentID_Name, e.g., R05922002_廖建棋.zip.
4. Do **not** include any **obj** or **language-dependent** files in the submitted package. The one with unreasonable file-size will get some penalties.
5. The environment of TA is Debian 3.16.7 with gcc version 5.2.1.
6. mail to : itct@cmlab.csie.ntu.edu.tw