Project 2 – CD-ROM Image

Systems and Systems Programming

Scope

- In this project you will read an image file of a CD-ROM and list out the paths and names to all the files on the CD-ROM.
  - We are NOT going to list the contents of the files.
  - We will print the starting sector number for the contents.
- I will post a few simple CD-ROM Images to use in testing.
- We will put together a couple of classes to help manage the blocks.
- Due date will be at least 2 weeks out once we get everything posted.

Issues

- Obviously, we need to decode the sectors in order to be able to do this.
- Open the file to be processed as a BINARY file – it makes a difference on Windows.
- We will start on Thursday.

CD-Rom Project Update

- Yes, The code will be posted. The code will include the 3 classes:
  - Primary Volume Descriptor
  - Directory Record
  - Descriptor Date and Time
- It will also include a skeletal main program that uses these.
- It will include 3 .iso images
  - basic.iso - single level directory structure.
  - twolevel.iso – two level directory structure – can you handle directories in directories?
  - eightlevel.iso – full eight level directory structure – you can think about this as the stress test on your project.
- I believe that the headers are (and will remain) C++-11 compliant. I'm trying not to blend in any newer versions of C++ for this in order to keep it portable to whatever compilers you are using.
- Problems should be posted to the discussion list so that everybody can see them.

Testing

- How do you test the output?

  I will provide a listing of the files on the different ISO images. You do NOT have to have yours list in the same order!

  Order depends on the how the directories are obtained and traversed so it can vary given the implementation.

  I strongly suggest that you start with the basic.iso as your test case and leave the other two until you debug basic.iso.

Due Date

- Moved to the 21st at the moment. If there are big problems with the classes once they are posted we could shift it again.