To Compile SORT

Jiayin Cao

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1 Brief Introduction

SORT is short for Simple Open-source Ray Tracing. It is a open source project on sourceforge. Any one is free to check out the source code.

SORT is a multi-platforms project which could work on Windows , Ubuntu and Mac OS. There are varies way to compile the project.

2 To compile on different platforms

2.1 Compile on Windows

SORT is mainly developed on Windows so that to compile it on the platform is quite easy. CMake is used to generate solution file. Please follow the following steps to generate the build:

1. Start a command line in the root folder of SORT.

2. 'mkdir vs', generate a folder for placing the solution file

3. 'cd vs', get into the folder

4. 'cmake -G "VS_VERSION" ..' , generate sln file.

5. open the solution file with your visual studio, build all.

2.2 Compile on Mac OS

Mac Os comiling is the last supported one. There are two ways of doing it.

2.2.1 Use Makefile

To compile this way G++ is required. And G++ could be set by installing Xcode (Xcode command line tools , which is not installed by default, is required too.) There is a makefile in "src" directory. A simple "make" command on the terminal will do.

The advantage of this compiling is that it is way simpler than the others, while the bad thing about it is that it is very hard to debug the program if you are not familiar with vi and gdb.

2.2.2   Use Xcode

Xcode is required to compile this way. In my case, Xcode 4.3.3 is used which means that Mac Os lion is required too. It is simple to compile using xcode too. There is a directory "mac" in the root directory of SORT. And the project file is there.

It is easy to compile too. And you can debug the program if you need to. Xcode provides us with rich features helping debugging. Whether you are familiar with vi or gdb is not an issue.

2.3   Compile on Ubuntu

There is nothing much to say about it. It is the same way with compiling using "makefile" on Mac OS.

3   To run on different platforms

To run the build, please add a .sort file as the first parameter, such as sort.exe cornell.sort A log file will be generated for debug purpose.

4   About 3rd-party library

It's easy to compile and run on each of the different platforms. All the third-party library is open-sourced, all of which are included in the project. So there is no need to download them seperately at all which makes the compiling so easy. Note, there is memory leak in some of the open-source library and it's all fixed which means the third-party is sort of a modified version you can't download anywhere.