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## How to compile OpenCL Kernel file(.cl) to llvm IR file



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How do I obtain an LLVM-IR file(.ll) from OpenCL Kernel file with clang?

The solution in [this](#) link seems working with some files, but for the codes which contains OpenCL vector types such as uchar4, seems not working (emitting type errors).

Is there an easy way to do this or is it not possible to gain LLVM-IR form with clang?

c++ clang openc1 llvm llvm-ir

edited May 23 at 10:33



asked Jul 2 '16 at 15:44



### 1 Answer

At least on OS X, there's an LLVM-based offline compiler for OpenCL kernels, you can find it in the following location:

```
/System/Library/Frameworks/OpenCL.framework/Libraries/openc1c
```

(It supports the `--help` command line argument showing you the possible options.)

I'm not aware of any published source code for `openc1c` so I guess that means you can't use it on other platforms, but as far as I'm aware, there's no standardised binary format for OpenCL kernels anyway, so you couldn't achieve platform independence with it.

answered Jul 7 '16 at 18:32

