**第八章-输出目标代码设计文档**

参照万花筒设计文档第八章，直接在main.cpp里补充相关代码即可

即有

//windows ctrl+Z linux ctrl+D 跳出mainloop

auto TargetTriple = sys::getDefaultTargetTriple();

TheModule->setTargetTriple(TargetTriple);

// Initialize the target registry etc.

InitializeAllTargetInfos();

InitializeAllTargets();

InitializeAllTargetMCs();

InitializeAllAsmParsers();

InitializeAllAsmPrinters();

std::string Error;

auto Target = TargetRegistry::lookupTarget(TargetTriple, Error);

// Print an error and exit if we couldn't find the requested target.

// This generally occurs if we've forgotten to initialise the

// TargetRegistry or we have a bogus target triple.

if (!Target) {

errs() << Error;

return 1;

}

auto CPU = "generic";

auto Features = "";

TargetOptions opt;

auto RM = Optional<Reloc::Model>();

auto TheTargetMachine =

Target->createTargetMachine(TargetTriple, CPU, Features, opt, RM);

TheModule->setDataLayout(TheTargetMachine->createDataLayout());

auto Filename = "output.o";

std::error\_code EC;

raw\_fd\_ostream dest(Filename, EC, sys::fs::F\_None);

if (EC) {

errs() << "Could not open file: " << EC.message();

return 1;

}

legacy::PassManager pass;

auto FileType = TargetMachine::CGFT\_ObjectFile;

if (TheTargetMachine->addPassesToEmitFile(pass, dest, nullptr, FileType)) {

errs() << "TheTargetMachine can't emit a file of this type";

return 1;

}

pass.run(\*TheModule);

dest.flush();

outs() << "Wrote " << Filename << "\n";

最终在项目当前目录下输出output.o的函数二进制文件，可以通过clang与其他的函数进行链接编译生成目标程序，可以实现外部调用自定义相关函数，详见测试文档。另，在我们进行操作的时候,遇到了个问题：事实上我们所有定义的函数在捕捉到换行符之后都在mainloop函数里进行分析并解析成目标代码，要跳出函数的话需要捕捉到tok\_eof符号，这个符号即为EOF，在linux下是ctrl+d在windows下则是ctrl+Z，这样才可以跳出循环执行之后的内容输出目标代码