**Technical Solution**

The following code is the makefile for the mmltomidi program. There is a debugging switch near the top that alters how the compilation is configured.

BUILD\_DIR = ./build

DEBUG = 0

STD = -std=c99

OPTI = -O0

EXE = mmltomidi

ifeq ($(DEBUG), 1)

DEBUGGING = -D DEBUGGING

LEX\_DEBUG = -d

else

DEBUGGING =

LEX\_DEBUG =

endif

$(EXE): main.c main.h y.tab.c lex.yy.c

gcc -g -w $(DEBUGGING) $(STD) $(OPTI) -o $(BUILD\_DIR)/$(EXE) main.c $(BUILD\_DIR)/lex.yy.c $(BUILD\_DIR)/y.tab.c

lex.yy.c: lex.l y.tab.h

lex -s $(LEX\_DEBUG) -o $(BUILD\_DIR)/lex.yy.c lex.l

y.tab.c y.tab.h: yacc.y

yacc -d -o $(BUILD\_DIR)/y.tab.c yacc.y

.PHONY: clean

clean:

rm -f $(BUILD\_DIR)/$(EXE)

rm -f $(BUILD\_DIR)/\*.o

rm -f $(BUILD\_DIR)/\*.c

rm -f $(BUILD\_DIR)/\*.h