While initially building the Platform Project, Neima Found that attempting to run Build Project in Vitis caused there to be a make files error in PWM and created warning in other files.

09:14:26 \*\*\*\* Build of project SolarMotorPlatform \*\*\*\*

buildplatform.bat 62955 SolarMotorPlatform

XSDB Server Channel: tcfchan#5

Building the BSP Library for domain - standalone\_domain on processor microblaze\_0

make --no-print-directory seq\_libs

"Running Make include in microblaze\_0/libsrc/bram\_v4\_5/src"

make -C microblaze\_0/libsrc/bram\_v4\_5/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COMPILE

R\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -Wall

-Wextra"

"Running Make include in microblaze\_0/libsrc/cpu\_v2\_12/src"

make -C microblaze\_0/libsrc/cpu\_v2\_12/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COMPILE

R\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -Wall

-Wextra"

"Running Make include in microblaze\_0/libsrc/gpio\_v4\_7/src"

make -C microblaze\_0/libsrc/gpio\_v4\_7/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COMPILE

R\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -Wall

-Wextra"

"Running Make include in microblaze\_0/libsrc/intc\_v3\_12/src"

make -C microblaze\_0/libsrc/intc\_v3\_12/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COMPIL

ER\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -Wall

-Wextra"

"Running Make include in microblaze\_0/libsrc/nexys4io\_v1\_0/src"

make -C microblaze\_0/libsrc/nexys4io\_v1\_0/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COM

PILER\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -W

all -Wextra"

"Running Make include in microblaze\_0/libsrc/PmodENC544\_v1\_0/src"

make -C microblaze\_0/libsrc/PmodENC544\_v1\_0/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "C

OMPILER\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections

-Wall -Wextra"

"Running Make include in microblaze\_0/libsrc/PmodENC\_v1\_0/src"

make -C microblaze\_0/libsrc/PmodENC\_v1\_0/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COMP

ILER\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -Wa

ll -Wextra"

"Running Make include in microblaze\_0/libsrc/PmodOLEDrgb\_v1\_0/src"

make -C microblaze\_0/libsrc/PmodOLEDrgb\_v1\_0/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "

COMPILER\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections

-Wall -Wextra"

"Running Make include in microblaze\_0/libsrc/PWM\_v1\_0/src"

make -C microblaze\_0/libsrc/PWM\_v1\_0/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COMPILER

\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -Wall -

Wextra"

"Running Make include in microblaze\_0/libsrc/standalone\_v7\_3/src"

make -C microblaze\_0/libsrc/standalone\_v7\_3/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "C

OMPILER\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections

-Wall -Wextra"

"Running Make include in microblaze\_0/libsrc/sysmon\_v7\_7/src"

make -C microblaze\_0/libsrc/sysmon\_v7\_7/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COMPI

LER\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -Wal

l -Wextra"

"Running Make include in microblaze\_0/libsrc/tmrctr\_v4\_7/src"

make -C microblaze\_0/libsrc/tmrctr\_v4\_7/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COMPI

LER\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -Wal

l -Wextra"

"Running Make include in microblaze\_0/libsrc/uartlite\_v3\_5/src"

make -C microblaze\_0/libsrc/uartlite\_v3\_5/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COM

PILER\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -W

all -Wextra"

"Running Make include in microblaze\_0/libsrc/wdttb\_v5\_1/src"

make -C microblaze\_0/libsrc/wdttb\_v5\_1/src -s include "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COMPIL

ER\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -Wall

-Wextra"

"Running Make libs in microblaze\_0/libsrc/nexys4io\_v1\_0/src"

make -C microblaze\_0/libsrc/nexys4io\_v1\_0/src -s libs "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COMPIL

ER\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -Wall

-Wextra"

"Compiling nexys4IO..."

mb-ar: creating ../../../lib/libxil.a

"Running Make libs in microblaze\_0/libsrc/PmodENC544\_v1\_0/src"

make -C microblaze\_0/libsrc/PmodENC544\_v1\_0/src -s libs "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COMP

ILER\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -Wa

ll -Wextra"

"Compiling PmodENC544"

PmodENC544.c: In function 'PMODENC544\_initialize':

PmodENC544.c:23:20: warning: comparison between pointer and integer

23 | if (baseaddr\_p == NULL) {

| ^~

PmodENC544\_selftest.c: In function 'PMODENC544\_Reg\_SelfTest':

PmodENC544\_selftest.c:53:59: warning: comparison of integer expressions of different signedness: 'u32' {aka 'long unsigned int'} and 'int' [-Wsign-compare]

53 | if ( PMODENC544\_mReadReg (baseaddr, read\_loop\_index\*4) != (read\_loop\_index+1)\*READ\_WRITE\_MUL\_FACTOR){

| ^~

PmodENC544\_selftest.c:37:6: warning: unused variable 'Index' [-Wunused-variable]

37 | int Index;

| ^~~~~

"Running Make libs in microblaze\_0/libsrc/PmodENC\_v1\_0/src"

make -C microblaze\_0/libsrc/PmodENC\_v1\_0/src -s libs "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COMPILE

R\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -Wall

-Wextra"

"Compiling PmodENC..."

"Running Make libs in microblaze\_0/libsrc/PmodOLEDrgb\_v1\_0/src"

make -C microblaze\_0/libsrc/PmodOLEDrgb\_v1\_0/src -s libs "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COM

PILER\_FLAGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -W

all -Wextra"

"Compiling PmodOLEDrgb..."

PmodOLEDrgb\_selftest.c: In function 'PMODOLEDRGB\_Reg\_SelfTest':

PmodOLEDrgb\_selftest.c:52:60: warning: comparison of integer expressions of different signedness: 'u32' {aka 'long unsigned int'} and 'int' [-Wsign-compare]

52 | if ( PMODOLEDRGB\_mReadReg (baseaddr, read\_loop\_index\*4) != (read\_loop\_index+1)\*READ\_WRITE\_MUL\_FACTOR){

| ^~

PmodOLEDrgb\_selftest.c:36:6: warning: unused variable 'Index' [-Wunused-variable]

36 | int Index;

| ^~~~~

"Running Make libs in microblaze\_0/libsrc/PWM\_v1\_0/src"

make -C microblaze\_0/libsrc/PWM\_v1\_0/src -s libs "SHELL=CMD" "COMPILER=mb-gcc" "ASSEMBLER=mb-as" "ARCHIVER=mb-ar" "COMPILER\_FL

AGS= -O2 -c -mcpu=v11.0 -mlittle-endian -mxl-soft-mul" "EXTRA\_COMPILER\_FLAGS=-g -ffunction-sections -fdata-sections -Wall -Wex

tra"

"Compiling PWM..."

PWM\_selftest.c: In function 'PWM\_Reg\_SelfTest':

PWM\_selftest.c:52:52: warning: comparison of integer expressions of different signedness: 'u32' {aka 'long unsigned int'} and 'int' [-Wsign-compare]

52 | if ( PWM\_mReadReg (baseaddr, read\_loop\_index\*4) != (read\_loop\_index+1)\*READ\_WRITE\_MUL\_FACTOR){

| ^~

PWM\_selftest.c:36:6: warning: unused variable 'Index' [-Wunused-variable]

36 | int Index;

| ^~~~~

mb-ar: \*.o: Invalid argument

make[2]: \*\*\* [Makefile:19: libs] Error 1

make[1]: \*\*\* [Makefile:46: microblaze\_0/libsrc/PWM\_v1\_0/src/make.libs] Error 2

make: \*\*\* [Makefile:18: all] Error 2

Failed to build the bsp sources for domain - standalone\_domain

Failed to generate the platform.

Reason: Failed to build the bsp sources for domain - standalone\_domain

invoked from within

"::tcf::eval -progress {apply {{msg} {puts $msg}}} {tcf\_send\_command tcfchan#0 xsdb eval s es {{platform active SolarMotorPlatform; platform generate }}}"

(procedure "::tcf::send\_command" line 4)

invoked from within

"tcf send\_command $::xsdb::curchan xsdb eval s es [list "platform active $PLATFORM\_NAME; platform generate $target"]"

invoked from within

"if { $iswindows == 1 } {

set XSDB\_PORT [lindex $argv 0]

set PLATFORM\_NAME [lindex $argv 1]

set arglen [llength $argv]

set lastind..."

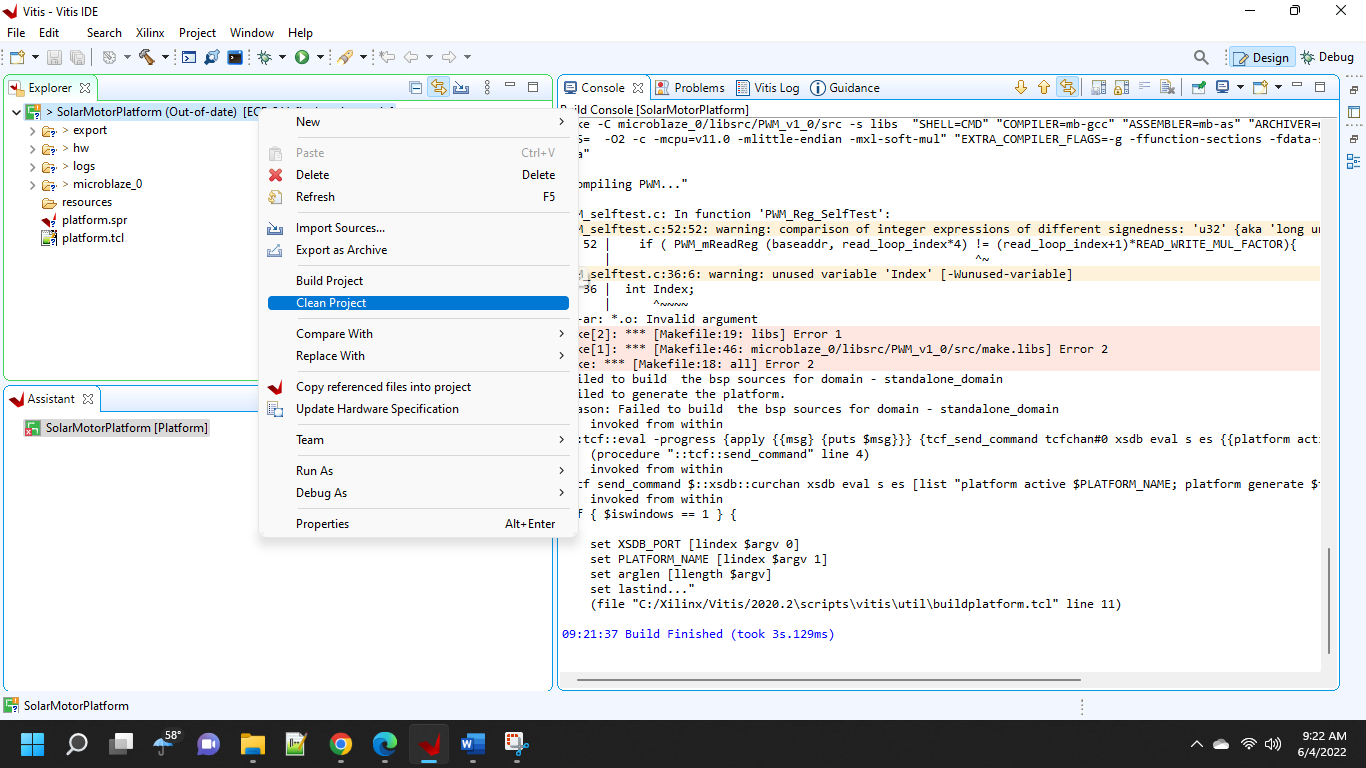
(file "C:/Xilinx/Vitis/2020.2\scripts\vitis\util\buildplatform.tcl" line 11)

09:14:29 Build Finished (took 3s.187ms)

Graphical user interface, text, application, email

Description automatically generated

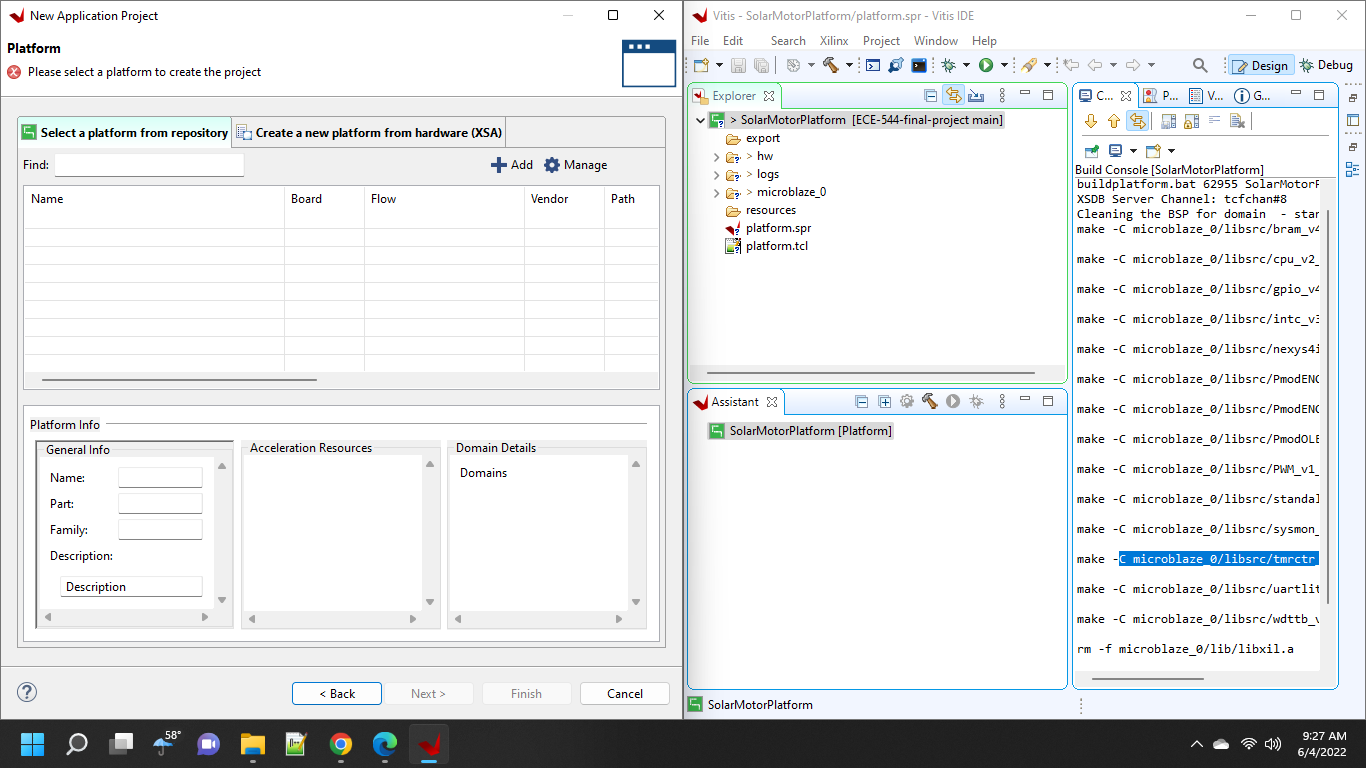
Neima found that using the Clean Project option for building the Platform Project allowed it to run without error.



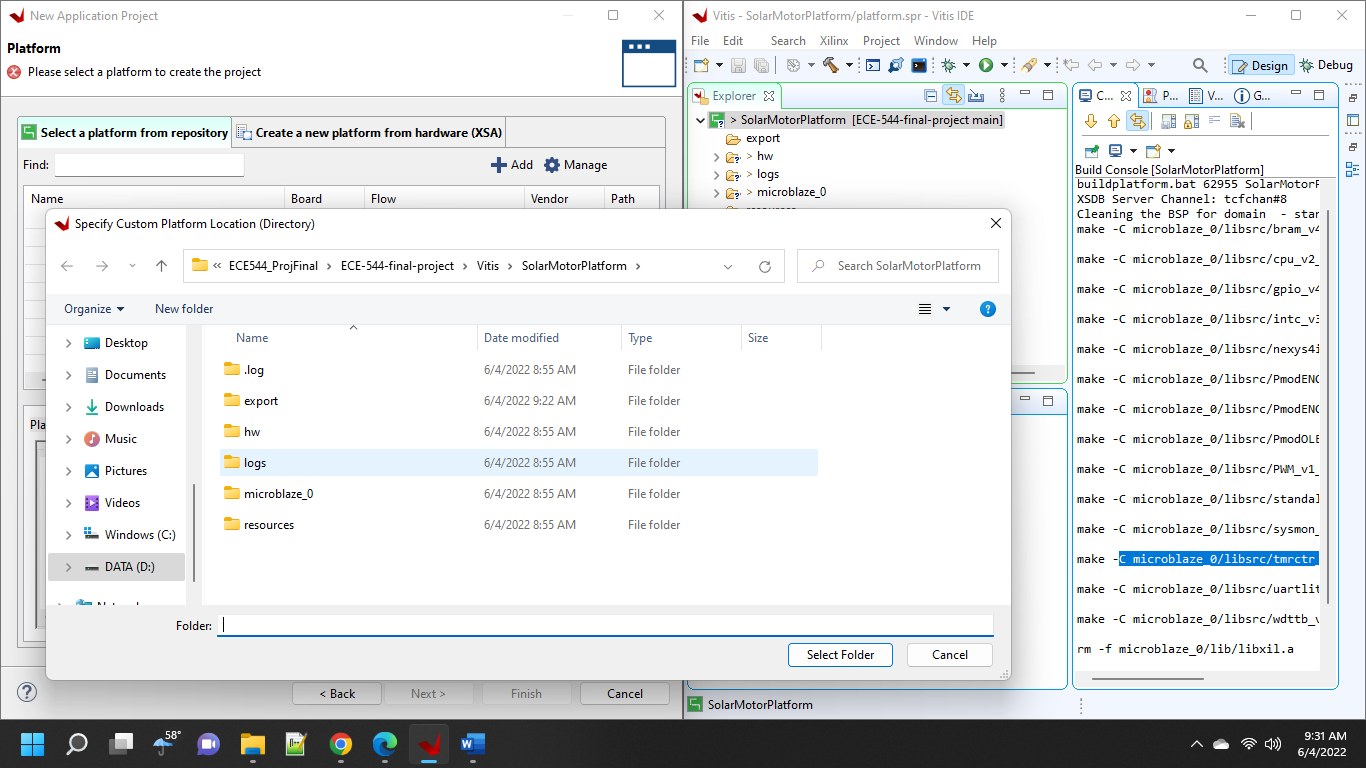
Graphical user interface, text, application

Description automatically generated

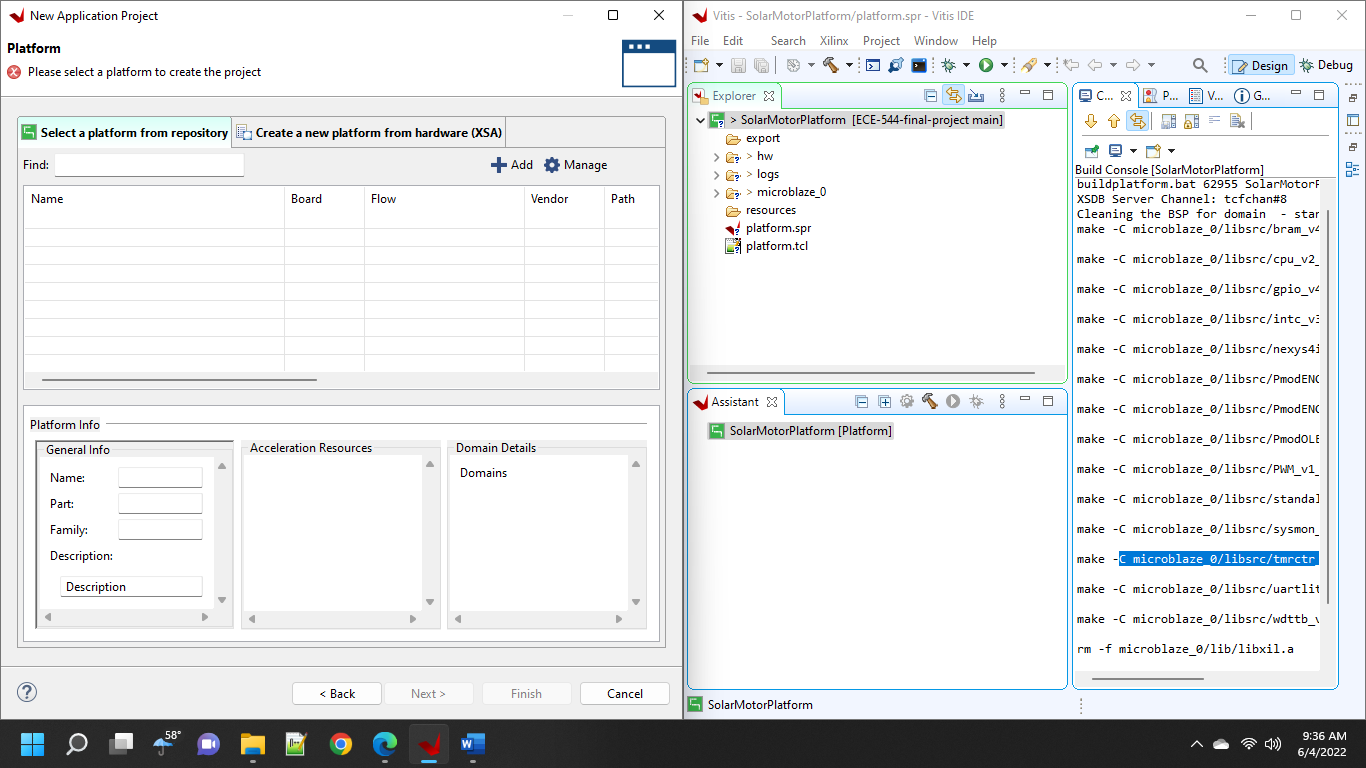
However these makefile problems seemed to caused a problem when attempting to make a new Application Project as the Platform Project was not available.



I tried linking the platform folder previously made with the Add option in the Select a Platform from repository screen but that did not cause it to appear in the list of platforms in repository.



Project Plateform was still not avaliable



I then click the Manage button as was show a list of Folders. The First was an export folder within the folder for the Platform Project I had made while the second was the Folder I had just tried adding, which was the overall folder for that platform project. From that I concluded that the files I needed were supposed to be in the export folder. When I checked its content I saw that it was empty, which caused my current problem to start making sense. I thought this might mean “Clean Build” option did not actually solve my original problem with building the platform.

Graphical user interface, text, application

Description automatically generated

However looking in the export folder for my previously project 3 also showed it was empty so I am not sure what to conclude.

Graphical user interface, text, application, email

Description automatically generated

I am able to tell that the main error seems to be in the lib function of the make file for the PWM\_v1\_0 but that the include function of that file had previously worked.

Text

Description automatically generatedGraphical user interface, application

Description automatically generated

I archived the make files and write some of it to be more in line the nexys4IO make file

Before Rewrite

Graphical user interface, application, Word

Description automatically generated

After Rewrite

Graphical user interface, text, application, Word

Description automatically generated

That actually seems to have worked and I was able to build the platform project. More importantly, the platform project was available when I tried to make an application project and there were files in the previously empty export folder. There were still 2 folders in the repository links for the platform repository in the application project builder which I did not expect.

A screenshot of a computer

Description automatically generated

This does not explain why that export folder had been empty in my project 3 folder.

I have successfully gotten the PWM Generator to output a PWM now