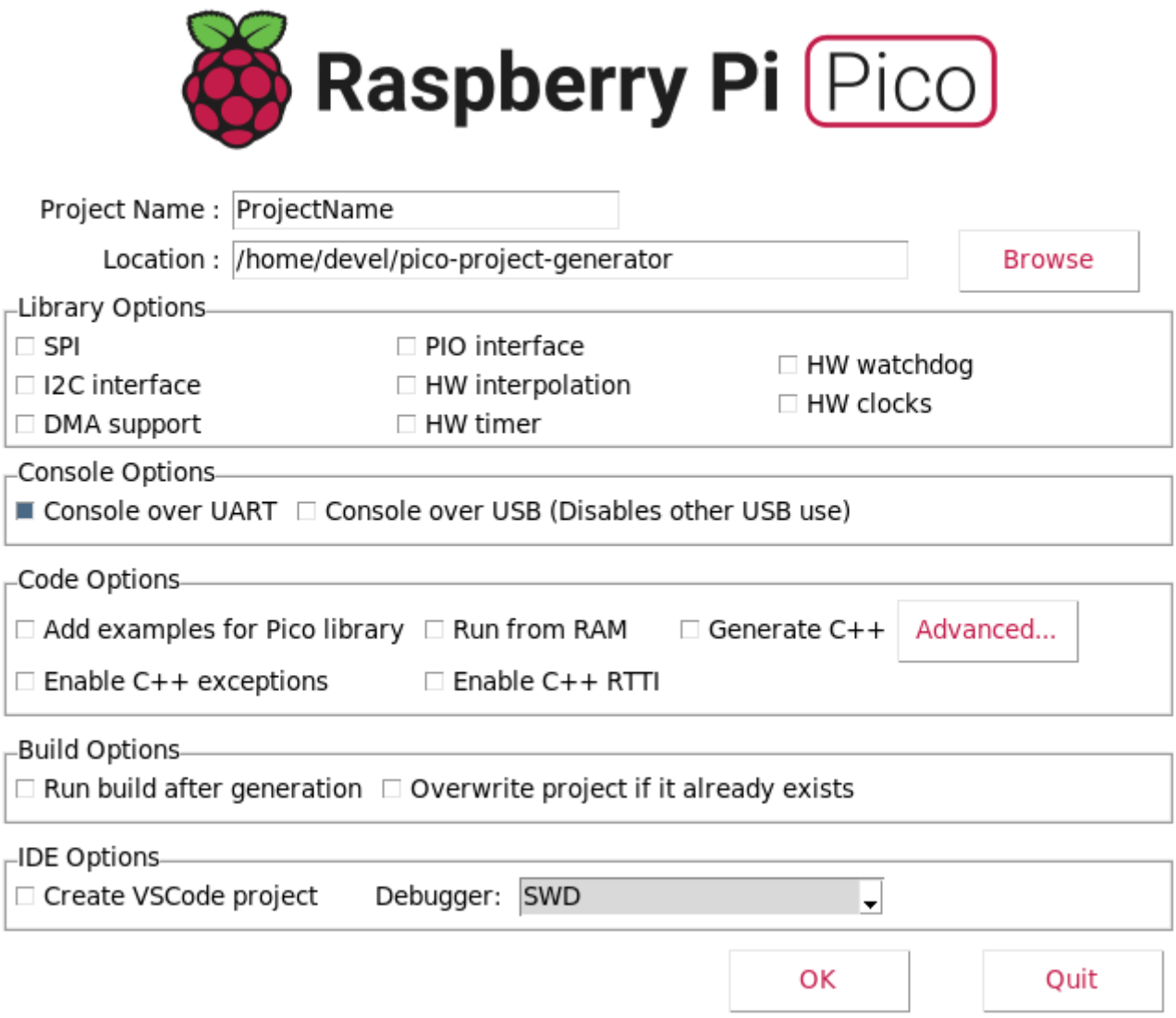
Forked https://github.com/raspberrypi/pico-project-generator.git

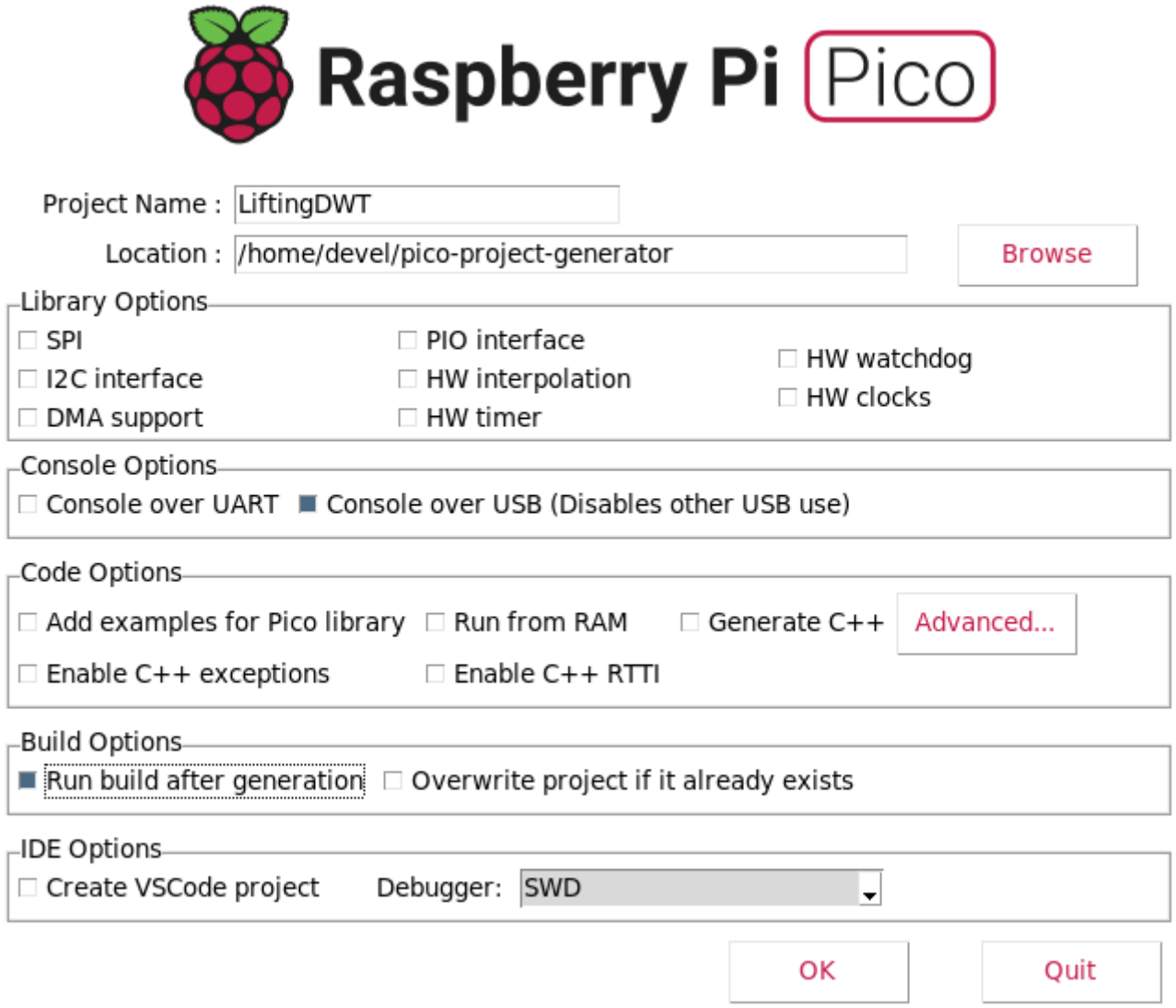
git clone git@github.com:develone/pico-project-generator.git

cd pico-project-generator/

./pico_project.py –gui



After Setting the options


Raspberry Pi Pico
Project Name : LiftingDWT
Location : /home/devel/pico-project-generator
Browse
Library Options
SPI
I2C interface
DMA support
PIO interface
HW interpolation
HW timer
HW watchdog
HW clocks
Console Options
Console over UART
Console over USB (Disables other USB use)
Code Options
Add examples for Pico library
Run from RAM
Generate C++
Advanced...
Enable C++ exceptions
Enable C++ RTTI
Build Options
Run build after generation
Overwrite project if it already exists
IDE Options
Create VSCode project
Debugger:
SWD
OK
Quit

Depress OK

```
PICO_SDK_PATH is /opt/pico-sdk
Defaulting PICO_PLATFORM to rp2040 since not specified.
Defaulting PICO platform compiler to pico_arm_gcc since not specified.
PICO compiler is pico_arm_gcc
-- The C compiler identification is GNU 8.3.1
-- The CXX compiler identification is GNU 8.3.1
-- The ASM compiler identification is GNU
-- Found assembler: /usr/bin/arm-none-eabi-gcc
Using regular optimized debug build (set PICO_DEOPTIMIZED_DEBUG=1 to de-optimize
)
Defaulting PICO target board to pico since not specified.
Using board configuration from /opt/pico-sdk/src/boards/include/boards/pico.h
-- Found Python3: /usr/bin/python3.9 (found version "3.9.2") found components: I
nterpreter
TinyUSB available at /opt/pico-sdk/lib/tinyusb/src/portable/raspberrypi/rp2040;
enabling build support for USB.
Compiling TinyUSB with CFG_TUSB_DEBUG=1
Using PICO_EXAMPLES_PATH from environment ('/opt/pico-examples')
-- Configuring done
-- Generating done
-- Build files have been written to: /home/devel/pico-project-generator/LiftingD
WT/build
```

OK

Depress OK

```
class/msc/msc_device.c.obj
[ 87%] Building C object CMakeFiles/LiftingDWT.dir/opt/pico-sdk/lib/tinyusb/src/
class/net/ecm_rndis_device.c.obj
[ 89%] Building C object CMakeFiles/LiftingDWT.dir/opt/pico-sdk/lib/tinyusb/src/
class/net/ncm_device.c.obj
[ 90%] Building C object CMakeFiles/LiftingDWT.dir/opt/pico-sdk/lib/tinyusb/src/
class/usbtmc/usbtmc_device.c.obj
[ 91%] Building C object CMakeFiles/LiftingDWT.dir/opt/pico-sdk/lib/tinyusb/src/
class/vendor/vendor_device.c.obj
[ 92%] Building C object CMakeFiles/LiftingDWT.dir/opt/pico-sdk/lib/tinyusb/src/
class/video/video_device.c.obj
[ 93%] Building C object CMakeFiles/LiftingDWT.dir/opt/pico-sdk/lib/tinyusb/src/
tusb.c.obj
[ 95%] Building C object CMakeFiles/LiftingDWT.dir/opt/pico-sdk/lib/tinyusb/src/
common/tusb_fifo.c.obj
[ 96%] Building C object CMakeFiles/LiftingDWT.dir/opt/pico-sdk/src/rp2_common/p
ico_fix/rp2040_usb_device_enumeration/rp2040_usb_device_enumeration.c.obj
[ 97%] Building C object CMakeFiles/LiftingDWT.dir/opt/pico-sdk/src/rp2_common/p
ico_unique_id/unique_id.c.obj
[ 98%] Building C object CMakeFiles/LiftingDWT.dir/opt/pico-sdk/src/rp2_common/h
ardware_flash/flash.c.obj
[100%] Linking CXX executable LiftingDWT.elf
[100%] Built target LiftingDWT
```

OK

CmakeLists.txt

```
# Generated Cmake Pico project file

cmake_minimum_required(VERSION 3.13)

set(CMAKE_C_STANDARD 11)
set(CMAKE_CXX_STANDARD 17)

# Initialise pico_sdk from installed location
# (note this can come from environment, CMake cache etc)
set(PICO_SDK_PATH "/opt/pico-sdk")

# Pull in Raspberry Pi Pico SDK (must be before project)
include(pico_sdk_import.cmake)

project(LiftingDWT C CXX ASM)

# Initialise the Raspberry Pi Pico SDK
pico_sdk_init()

# Add executable. Default name is the project name, version 0.1

add_executable(LiftingDWT LiftingDWT.c )

pico_set_program_name(LiftingDWT "LiftingDWT")
pico_set_program_version(LiftingDWT "0.1")

pico_enable_stdio_uart(LiftingDWT 0)
pico_enable_stdio_usb(LiftingDWT 1)

# Add the standard library to the build
target_link_libraries(LiftingDWT pico_stdlib)

pico_add_extra_outputs(LiftingDWT)
```

LiftingDWT.c

```
#include <stdio.h>
#include "pico/stdlib.h"


int main()
{
    stdio_init_all();

    puts("Hello, world!");

    return 0;
}
```

```
devel@pi4-23:~/pico-project-generator/LiftingDWT/build $ ls
CMakeCache.txt       generated       LiftingDWT.elf.map  pico-sdk
CMakeFiles           LiftingDWT.bin  LiftingDWT.hex
cmake_install.cmake  LiftingDWT.dis  LiftingDWT.uf2
elf2uf2              LiftingDWT.elf  Makefile

export PATH=~/local/openocd/bin:$PATH

devel@pi4-23:~/pico-project-generator/LiftingDWT/build $ echo $PATH
/home/devel/local/openocd/bin:/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/local/
games:/usr/games

devel@pi4-23:~/pico-project-generator/LiftingDWT/build $ openocd -f interface/raspberrypi-
swd.cfg -f target/rp2040.cfg -c "program LiftingDWT.elf verify reset exit"
Open On-Chip Debugger 0.10.0+dev-g71510a7-dirty (2021-08-15-17:08)
Licensed under GNU GPL v2
For bug reports, read
        http://openocd.org/doc/doxygen/bugs.html
adapter speed: 1000 kHz

Info : Hardware thread awareness created
Info : Hardware thread awareness created
Info : RP2040 Flash Bank Command
Info : BCM2835 GPIO JTAG/SWD bitbang driver
Info : clock speed 1001 kHz
Info : SWD DPIDR 0x0bc12477
Info : SWD DLPIDR 0x00000001
Info : SWD DPIDR 0x0bc12477
Info : SWD DLPIDR 0x10000001
Info : rp2040.core0: hardware has 4 breakpoints, 2 watchpoints
Info : rp2040.core1: hardware has 4 breakpoints, 2 watchpoints
Info : starting gdb server for rp2040.core0 on 3333
Info : Listening on port 3333 for gdb connections
target halted due to debug-request, current mode: Thread
xPSR: 0xf1000000 pc: 0x000000ee msp: 0x20041f00
target halted due to debug-request, current mode: Thread
xPSR: 0xf1000000 pc: 0x000000ee msp: 0x20041f00
** Programming Started **
Info : RP2040 B0 Flash Probe: 2097152 bytes @10000000, in 512 sectors

target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x0000012a msp: 0x20041f00
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x0000012a msp: 0x20041f00
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x0000012a msp: 0x20041f00
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x0000012a msp: 0x20041f00
Info : Writing 36864 bytes starting at 0x0
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x0000012a msp: 0x20041f00
```

```
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x0000012a msp: 0x20041f00
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x0000012a msp: 0x20041f00
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x0000012a msp: 0x20041f00
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x0000012a msp: 0x20041f00
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x0000012a msp: 0x20041f00
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x0000012a msp: 0x20041f00
** Programming Finished **
** Verify Started **
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x0000012a msp: 0x20041f00
target halted due to debug-request, current mode: Thread
xPSR: 0x01000000 pc: 0x0000012a msp: 0x20041f00
** Verified OK **
** Resetting Target **
shutdown command invoked
```

```
 mkdir /opt/pico-examples/LiftingDWT
```

```
devel@pi4-23:~ $ cp pico-project-generator/LiftingDWT/LiftingDWT.c
/opt/pico-examples/LiftingDWT/
devel@pi4-23:~ $ cp pico-project-generator/LiftingDWT/CMakeLists.txt
/opt/pico-examples/LiftingDWT/
```

```
diff ../LiftingDWT/CMakeLists.txt ~/pico-project-generator/LiftingDWT/CMakeLists.txt
13c13
< #include(pico_sdk_import.cmake)
---
> include(pico_sdk_import.cmake)
```

```
openocd -f interface/raspberrypi-swd.cfg -f target/rp2040.cfg -c "program
LiftingDWT/LiftingDWT.elf verify reset exit"
```