

Clock Configuration

Configure the clock as external with 72MHz

Categories

A-Z

System Core

DMA

GPIO

IWDG

NVIC

RCC

SYS

WWDG

Analog

ADC1

ADC2

RCC Mode and Configuration

Mode

High Speed Clock (HSE)Crystal/Ceramic Resonator

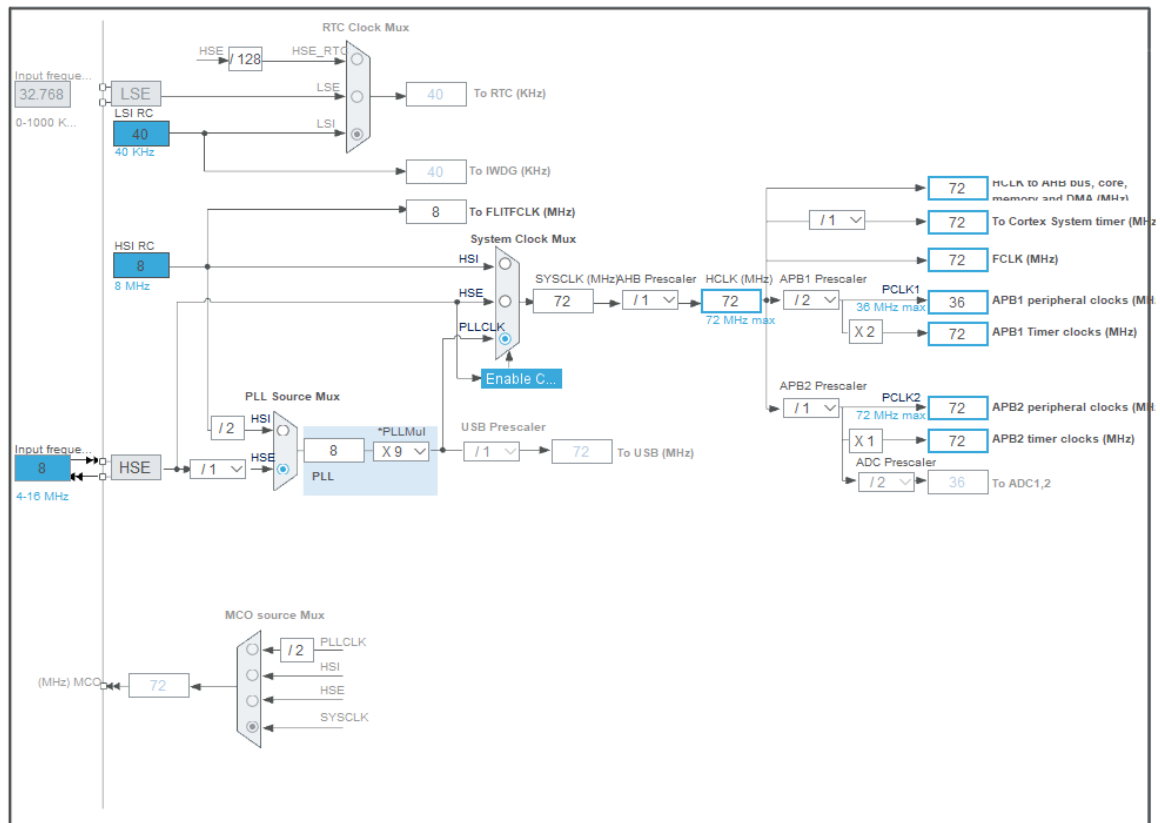
Low Speed Clock (LSE)Disable

☐ Master Clock Output

Clock Configuration

Project Manager

Resolve Clock Issues



USART Configuration

Configure in Asynchronous mode and enable global interruptions

USART1 Mode and Configuration

Mode	
Mode	<div>Asynchronous</div>
Hardware Flow Control (RS232)	<div>Disable</div>

Configuration

Reset Configuration

✔ NVIC Settings	✔ DMA Settings	✔ GPIO Settings	
✔ Parameter Settings	✔ User Constants		
NVIC Interrupt Table	Enabled	Preemption Priority	Sub Priority
DMA1 channel4 global interrupt	✔	0	0
DMA1 channel5 global interrupt	✔	0	0
USART1 global interrupt	✔	0	0

Configure parameters as you need, in this case it is used 115200 baudrate with 8 bits and no parity, configure data direction to receive and transmit.

✓ NVIC Settings

✓ DMA Settings

✓ GPIO Settings

✓ Parameter Settings

✓ User Constants

Configure the below parameters :

Search (Ctrl+F)

◀

▶

i

▼ Basic Parameters

Baud Rate

115200 Bits/s

Word Length

8 Bits (including Parity)

Parity

None

Stop Bits

1

▼ Advanced Parameters

Data Direction

Receive and Transmit

Over Sampling

16 Samples

Configure RX DMA in circular mode, TX DMA in normal mode, increment memory address with peripheral and memory data width as byte in both.

✓ Parameter Settings

✓ User Constants

✓ NVIC Settings

✓ DMA Settings

✓ GPIO Settings

DMA Request	Channel	Direction	Priority
USART1_RX	DMA1 Channel 5	Peripheral To Memory	Low
USART1_TX	DMA1 Channel 4	Memory To Peripheral	Low

Add

Delete

DMA Request Settings

Mode

Circular

▼

Increment Address

Peripheral

☐

Memory

☒

Data Width

Byte

▼

Byte

▼

DMA Request	Channel	Direction	Priority
USART1_RX	DMA1 Channel 5	Peripheral To Memory	Low
USART1_TX	DMA1 Channel 4	Memory To Peripheral	Low

Add Delete

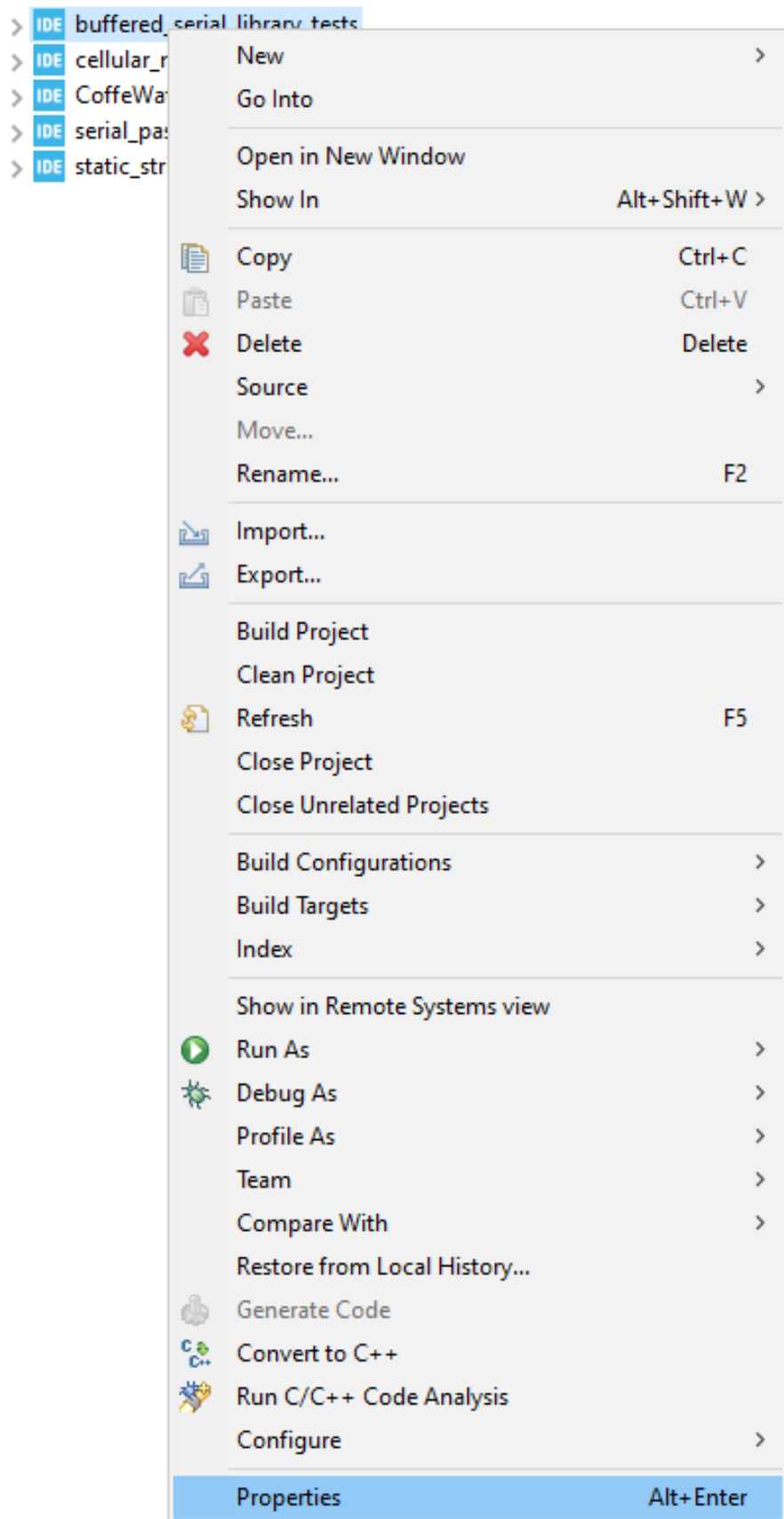
DMA Request Settings

Mode	Normal	Increment Address	<input type="checkbox"/>	Peripheral	<input type="checkbox"/>	Memory	<input checked="" type="checkbox"/>
		Data Width	Byte			Byte	

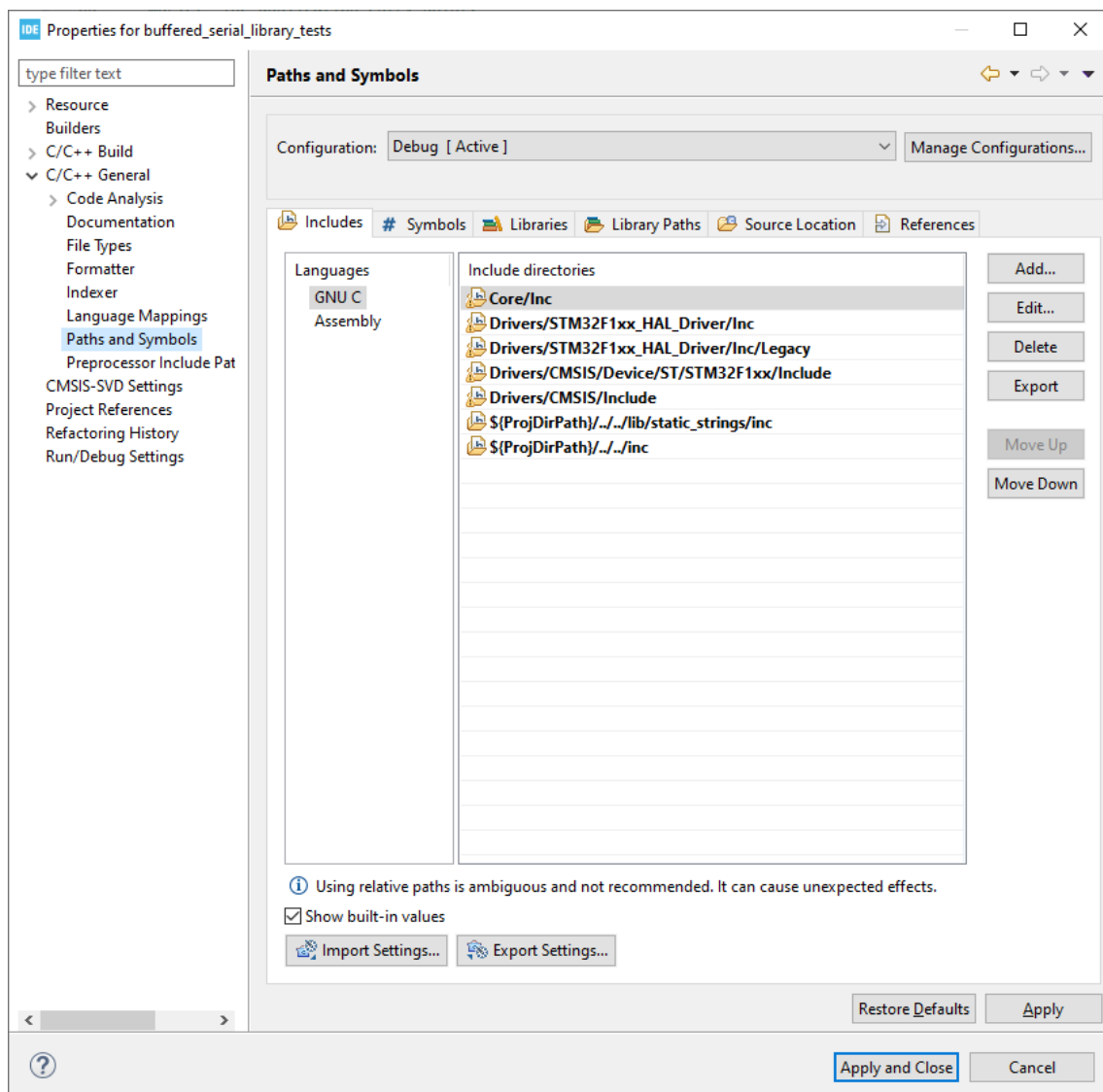
Finally save the file to generate code.

Add library to project

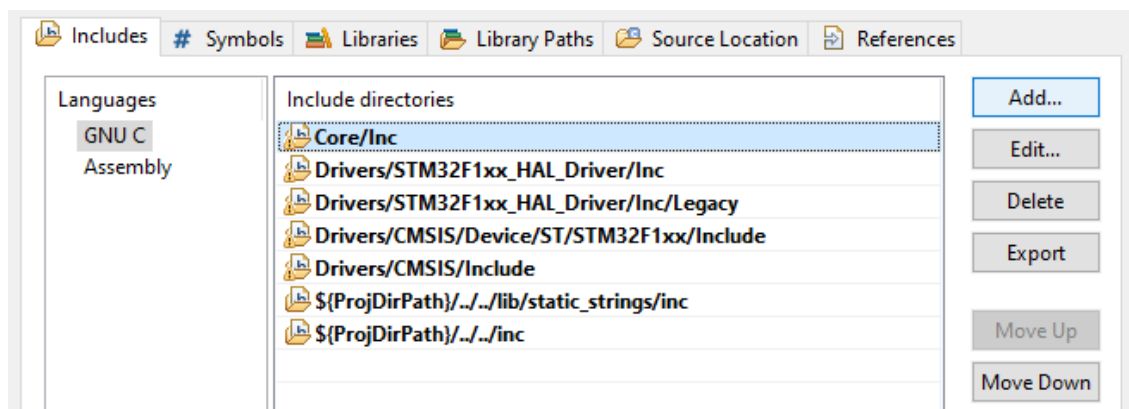
Right click on project and select properties



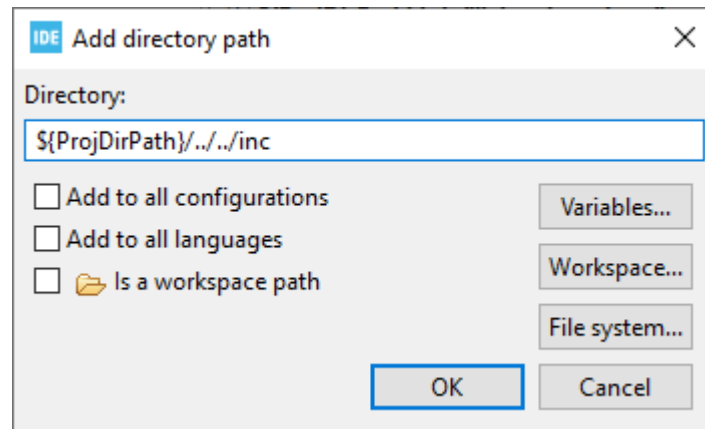
Go to C/C++ General and select Paths and Symbols



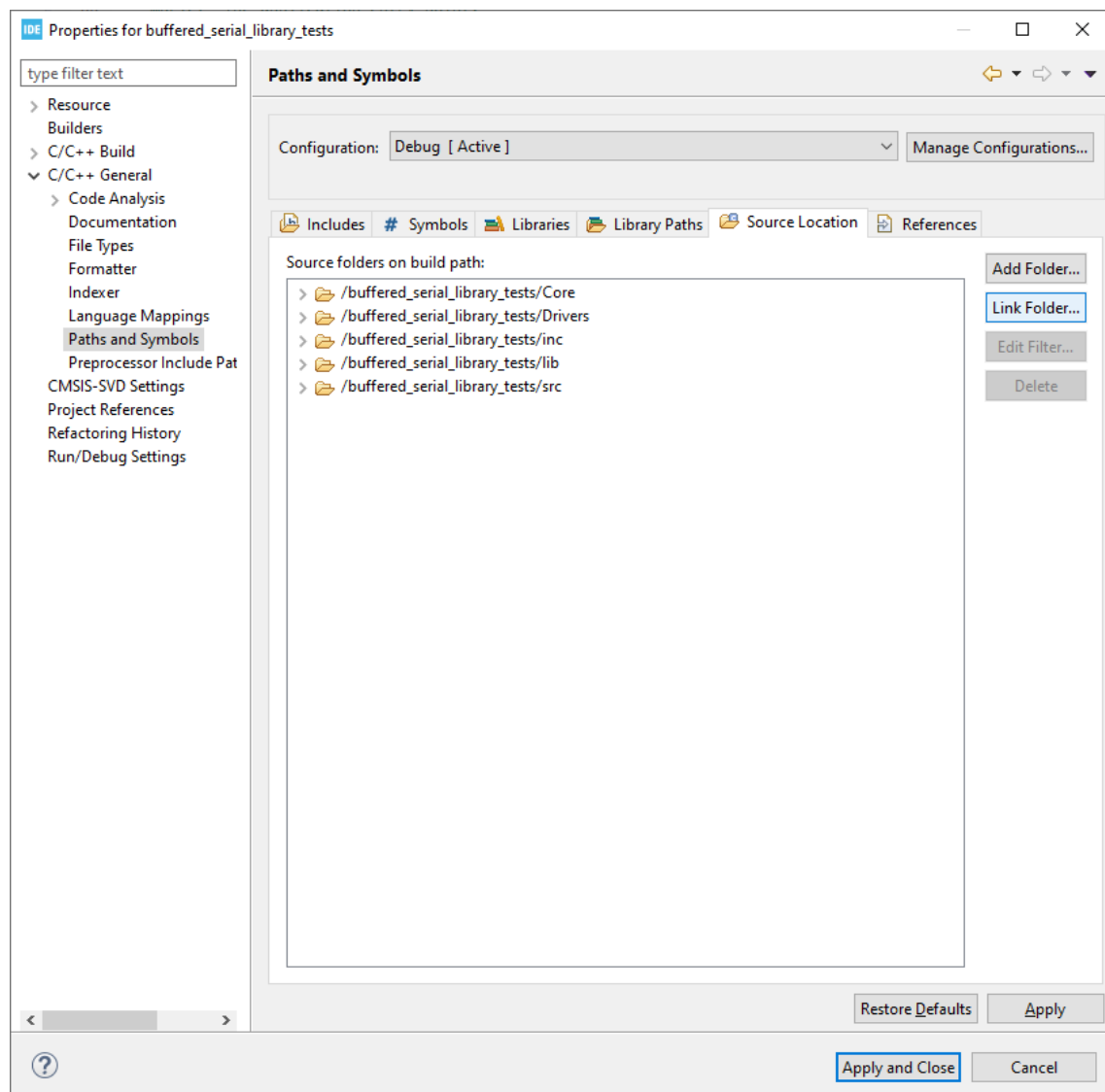
In includes click Add.



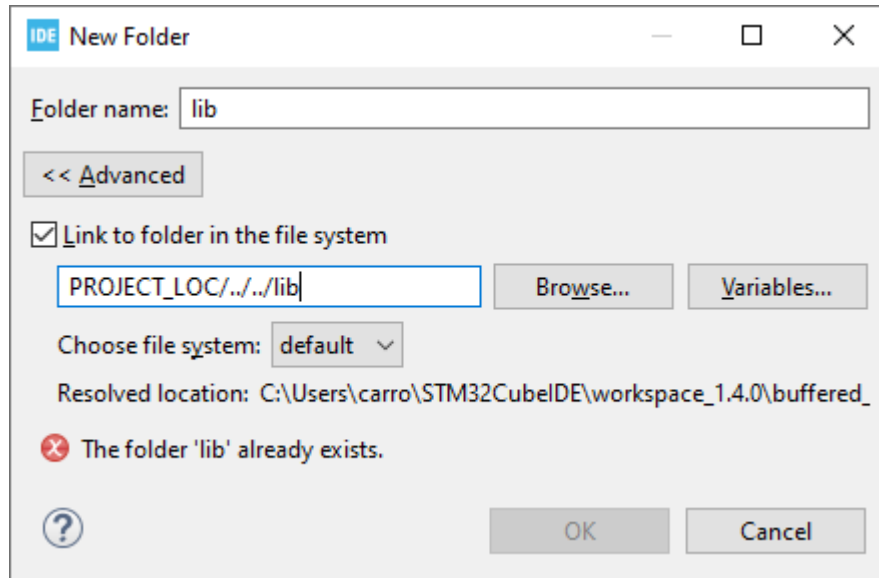
Add the path of the folder with the header files and click OK. I use a relative path with the environment variable ProjDirPath, the variable can be placed with the Variables... button. I suggest to use relative paths and create a parent project folder with a lib folder and a the STM32CubeIDE project.



Go to Sources Location and select Link Folder.



Check “Link to folder in the file system” and select the folder where the library is and click OK. In my project I add the lib folder mentioned in the previous step, since I placed there all the libraries and it add the child folders and files, the sources and headers needed to run the project are added to the compiler and linker paths. You have to link all the folders with the sources and headers required.



Click Apply and Close button and rebuild.