

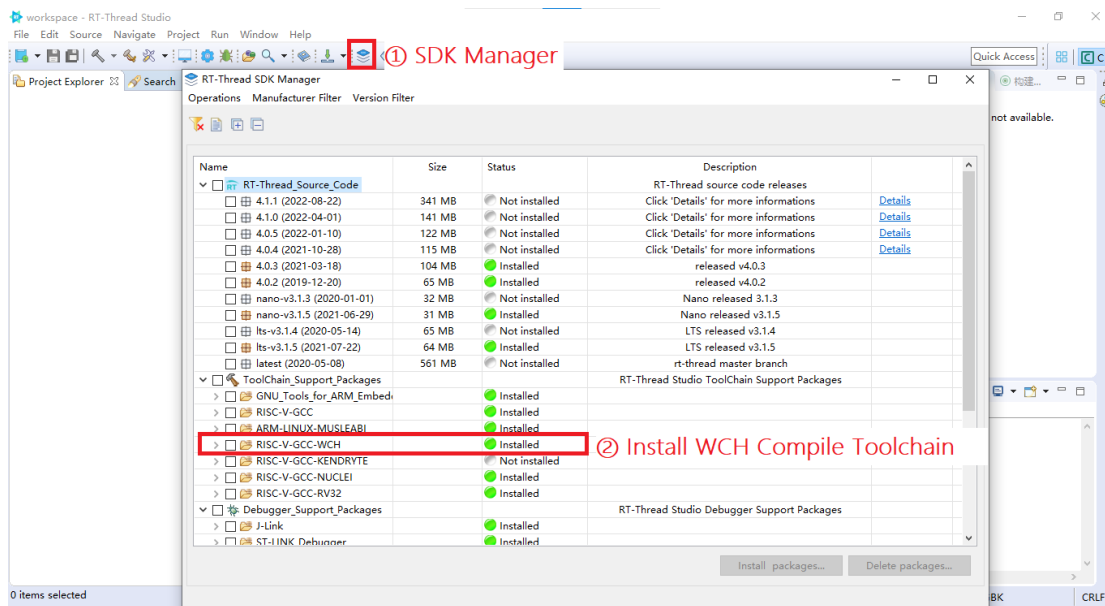
CH32V208W-R0 BSP Introductions

1. Prepare

- RT-Thread Studio:

<https://www.rt-thread.io/download.html?download=Studio>

- WCH Compile Toolchain: Use RT-Thread Studio to download.



It is downloaded to location

...\RT-ThreadStudio\repo\Extract\ToolChain_Support_Packages\WCH\RISC-V-GCC-WCH\8.2.0.



- RT-Thread latest code:

<https://github.com/RT-Thread/rt-thread/archive/refs/heads/master.zip>

- WCHISPTool:

<https://www.wch.cn/downloads/file/196.html?time=2023-06->

27%2009:54:40&code=8AltXF4zRsZ8PqEf7BOyT9xKh9Dhp6dG0pU98d2x

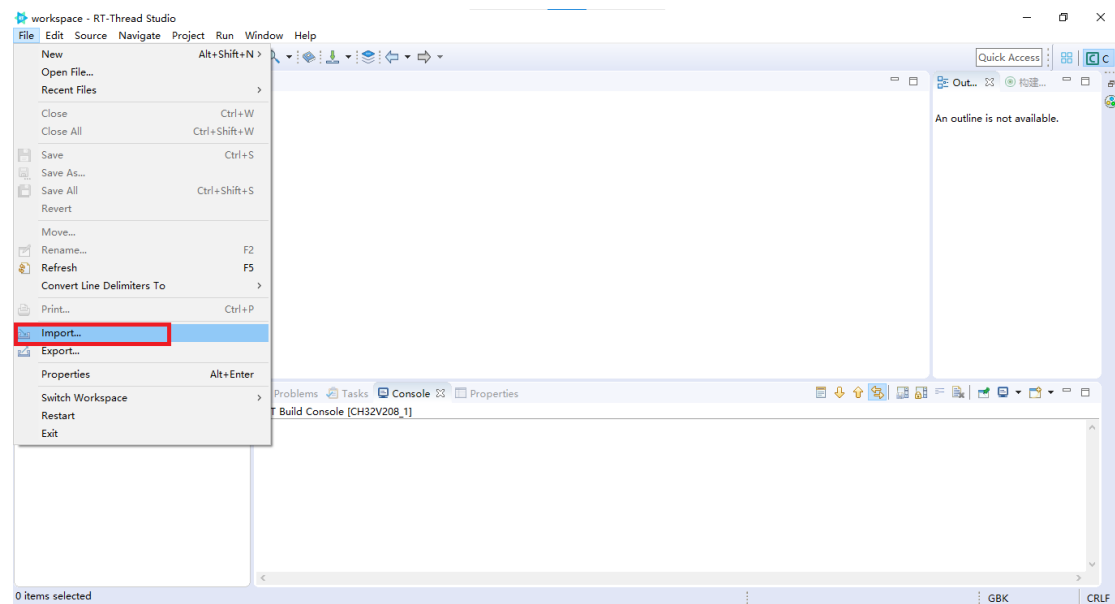
- WCH-LinkUtility:

<https://www.wch.cn/downloads/file/418.html?time=2023-06->

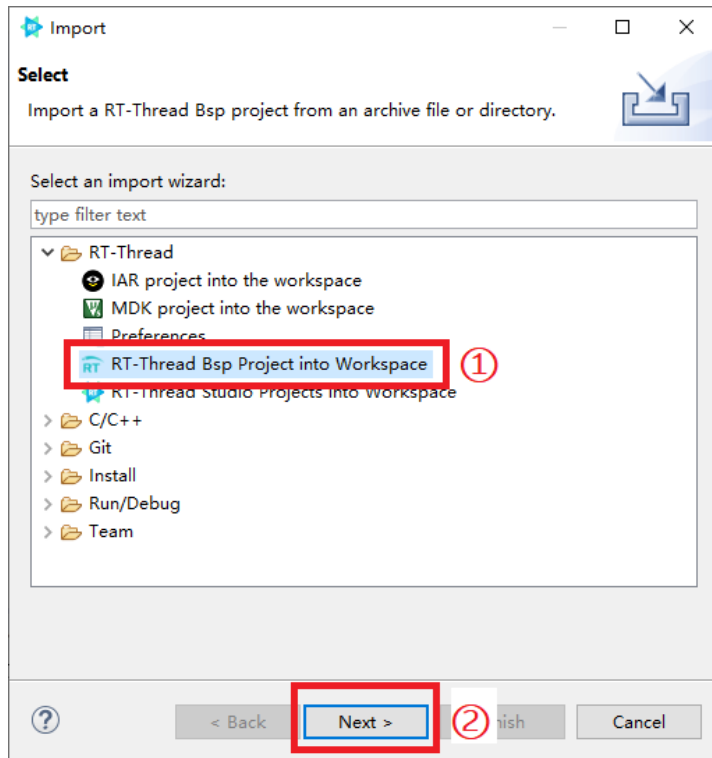
27%2009:56:49&code=73BZTeEgQ7ZnDNj9F9bH6r2T1pwuP3KJJfQfYPJr

2. Import Project

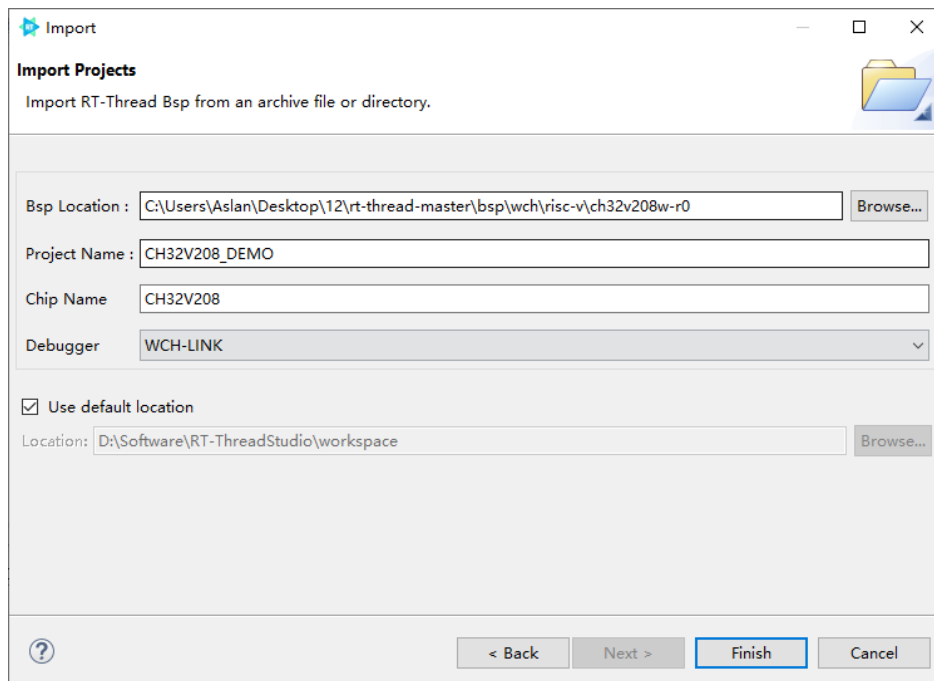
2.1 RT-Thread Studio -> File -> Import



2.2 Select 'RT-Thread Bsp Project into WorkSpace'



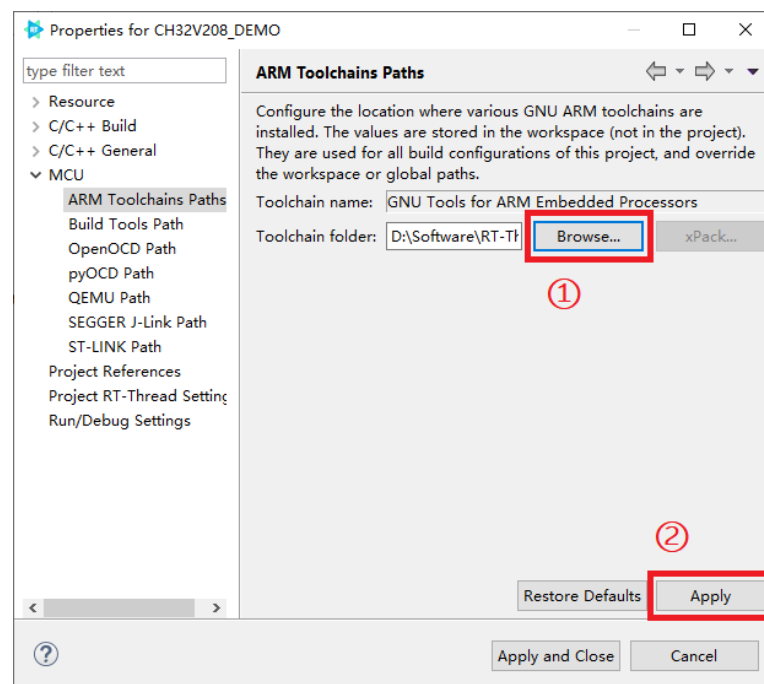
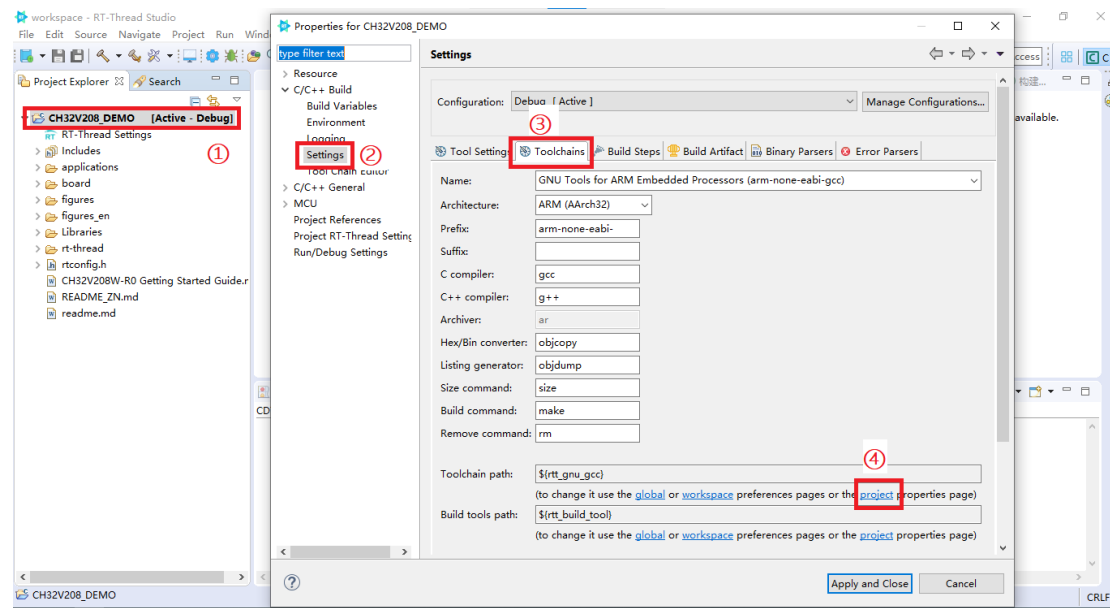
2.3 Fill in the project information. The location of the BSP root directory is ...\\rt-thread-master\\bsp\\wch\\risc-v\\ch32v208w-r0.



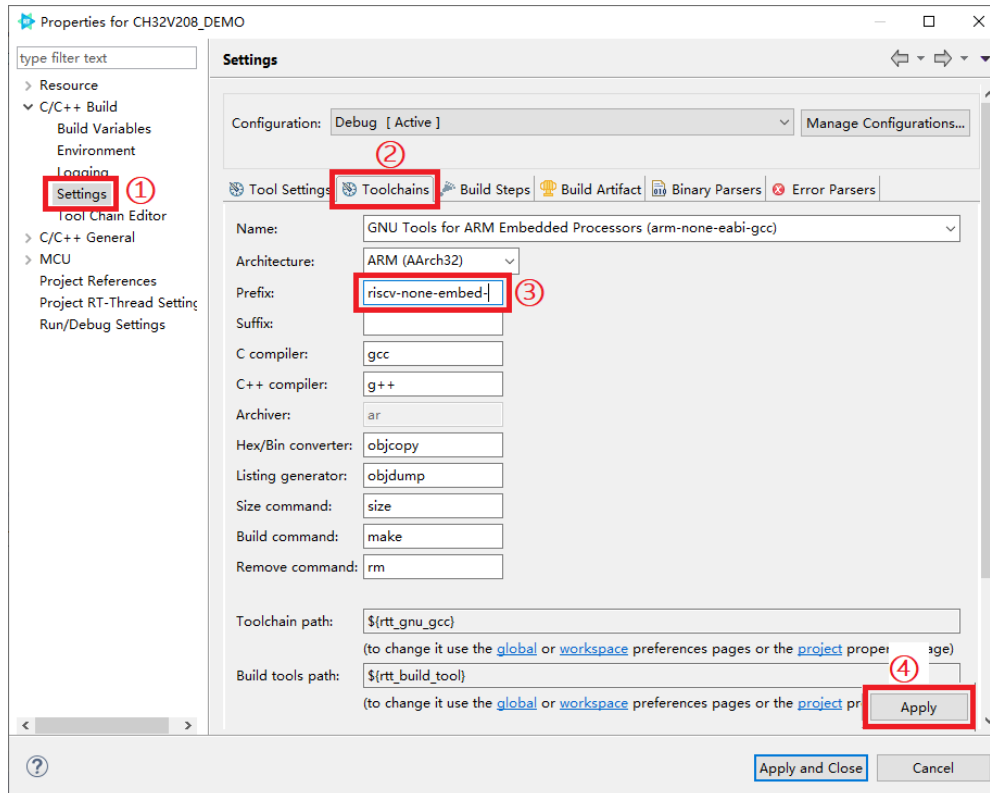
2.4 Configure the environment

2.4.1 Select the location of WCH Compile ToolChain.

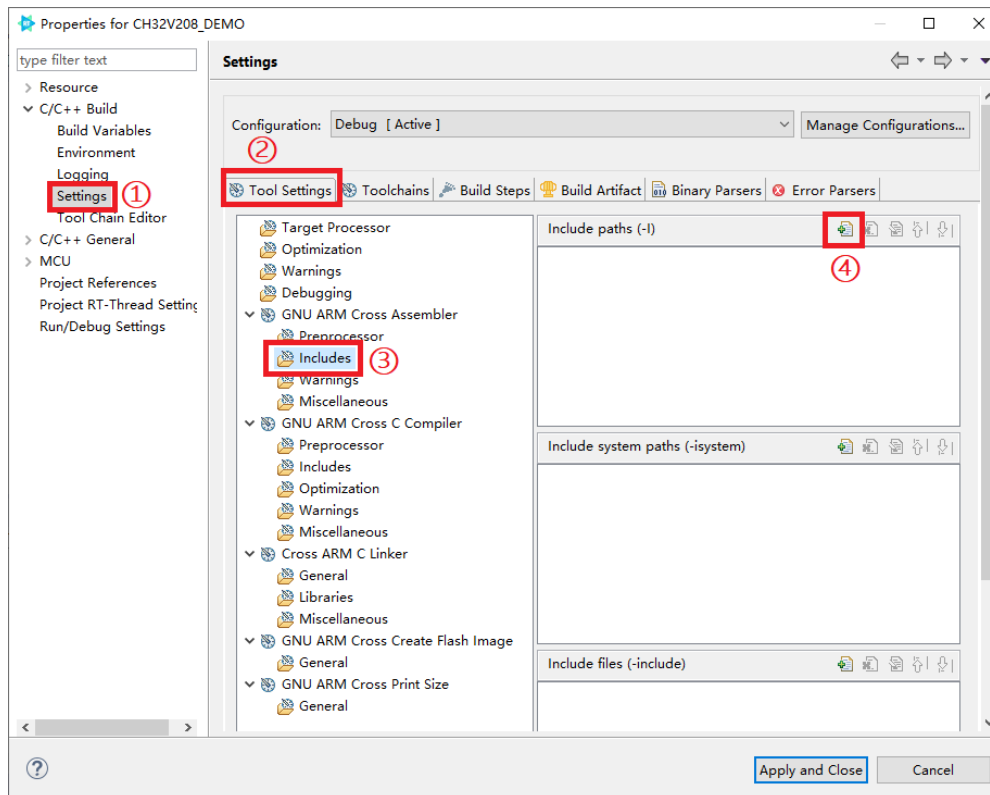
...\RT-ThreadStudio\repo\Extract\ToolChain_Support_Packages\WCH\RISC-V-GCC-WCH\8.2.0\bin

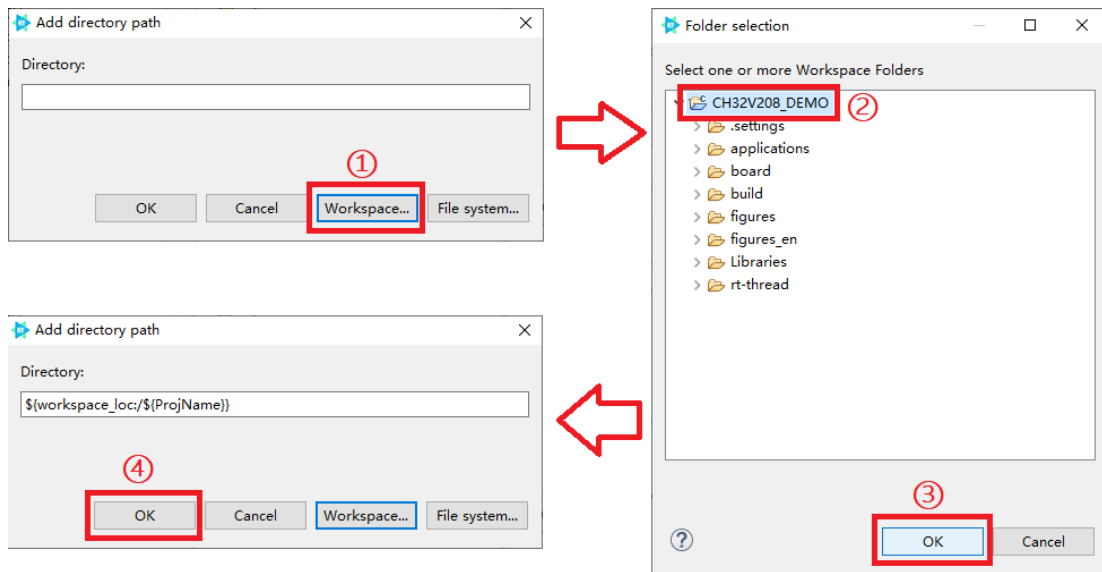


2.4.2 Modify the Prefix to 'riscv-none-embed-'. Note the '-' at the end.

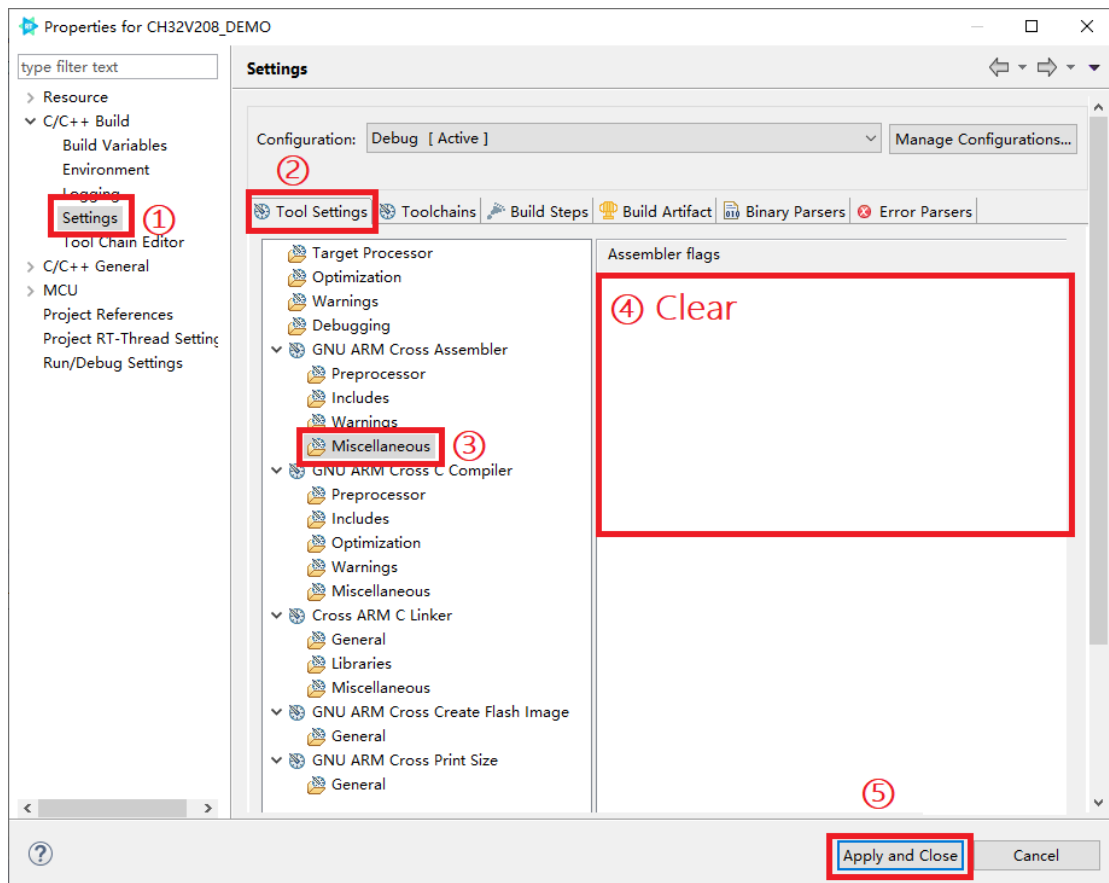


2.4.3 Add path.



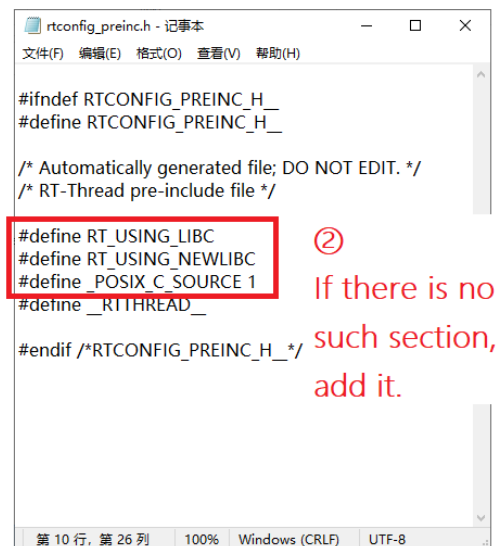
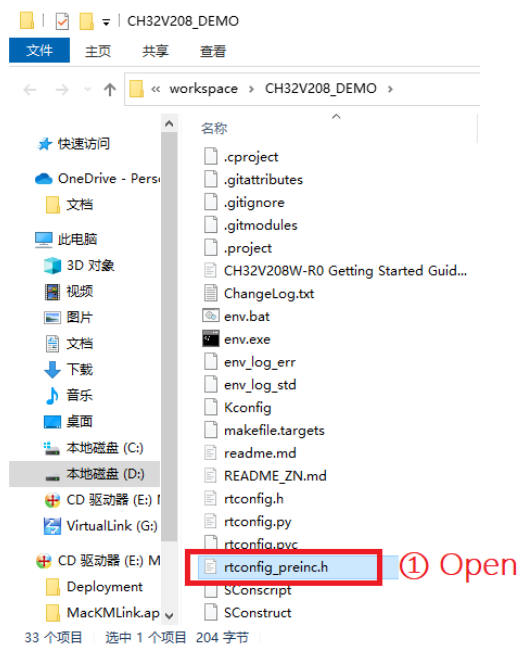
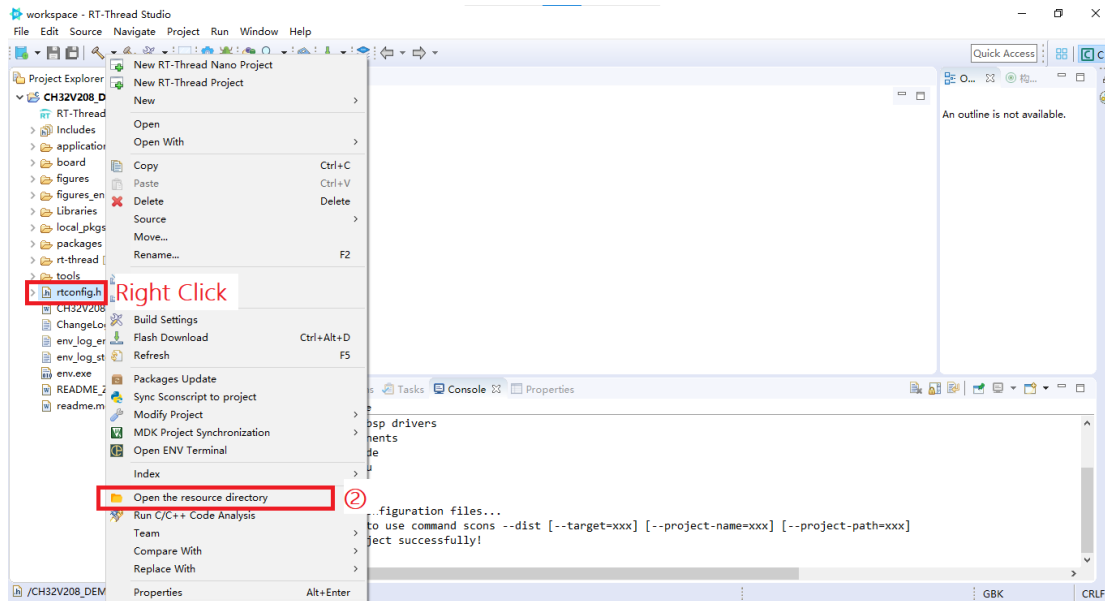


2.4.4 Clear Miscellaneous.

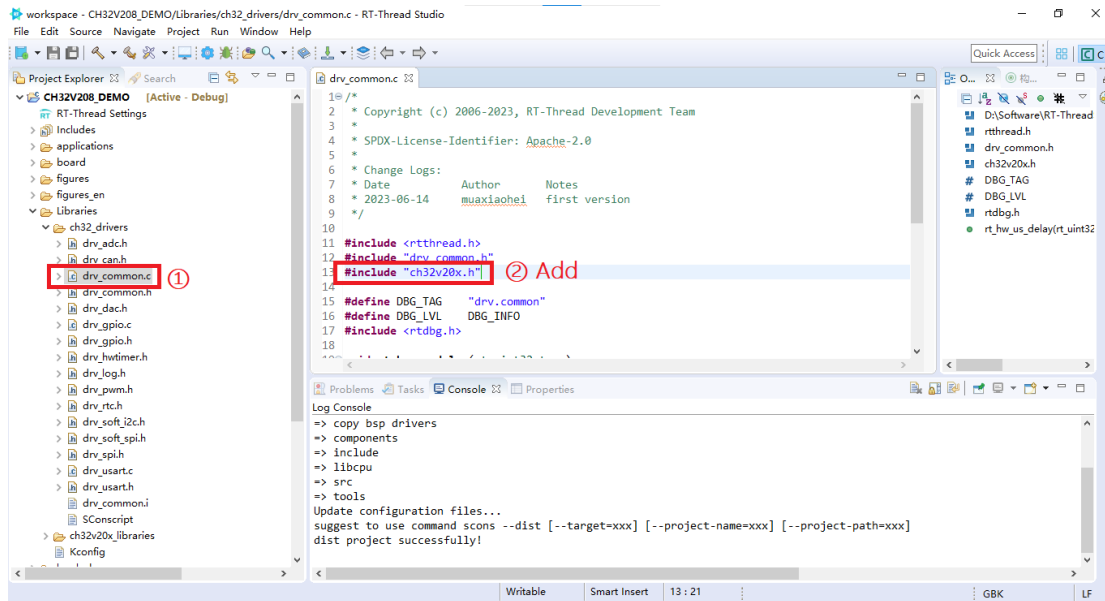


2.5 Document modification

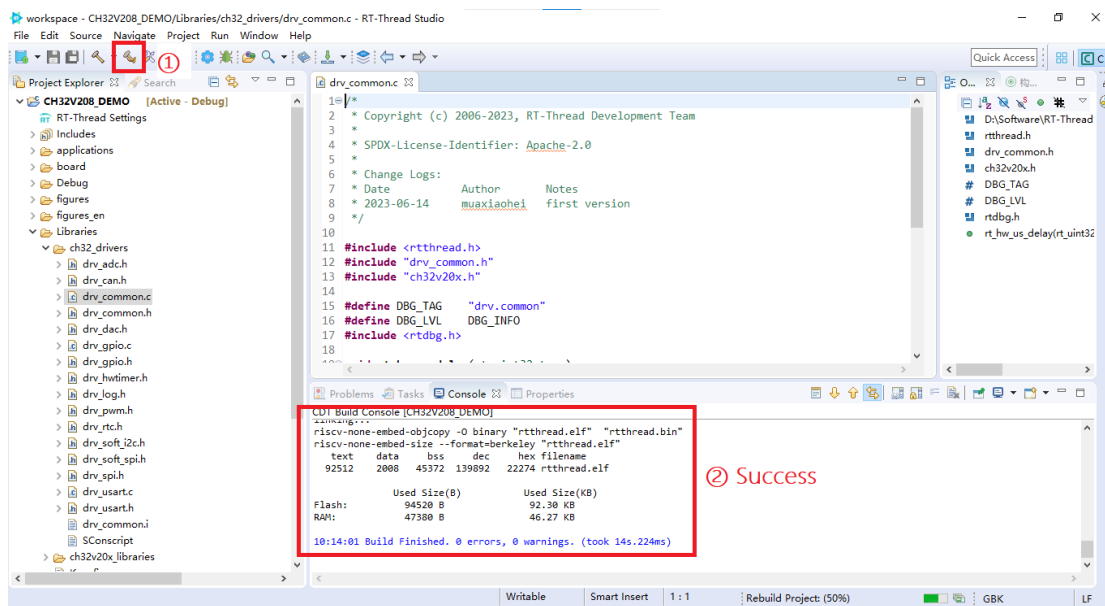
2.5.1 Modify 'rtconfig_preinc.h'.



2.5.2 Modify 'drv_common.c'.



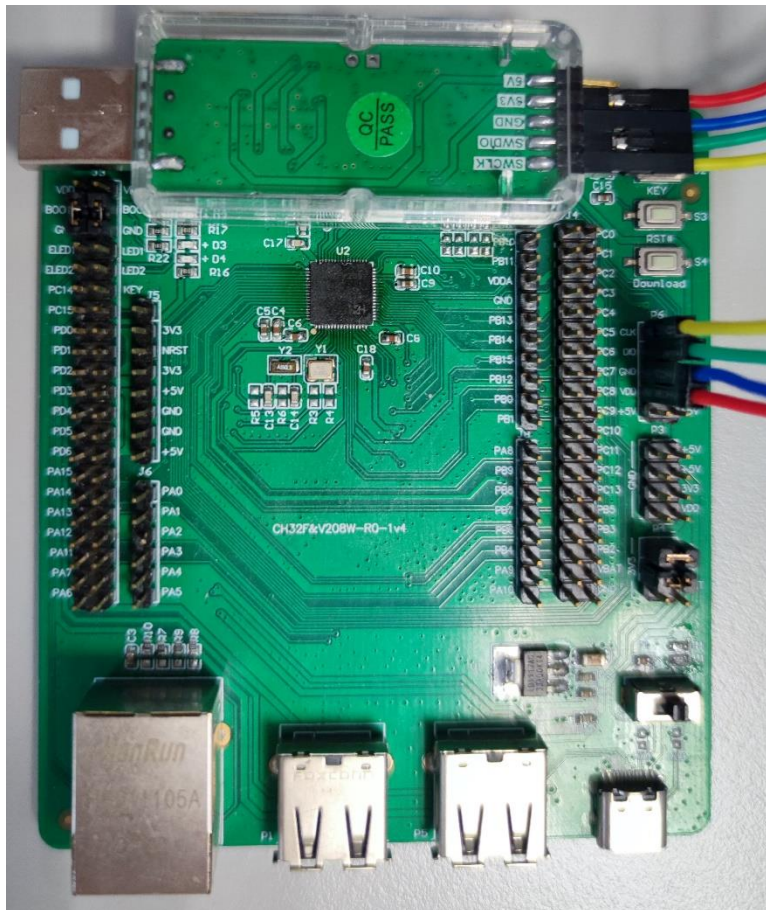
2.6 Compile



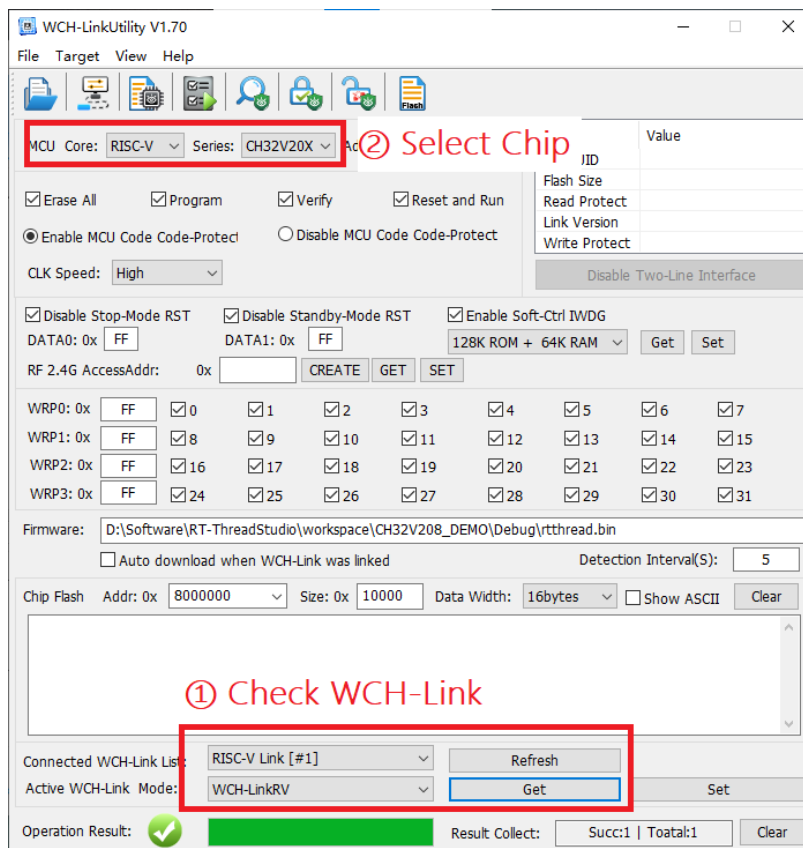
3. Download (Select one of the two)

3.1 Use WCH-LinkUtility to download

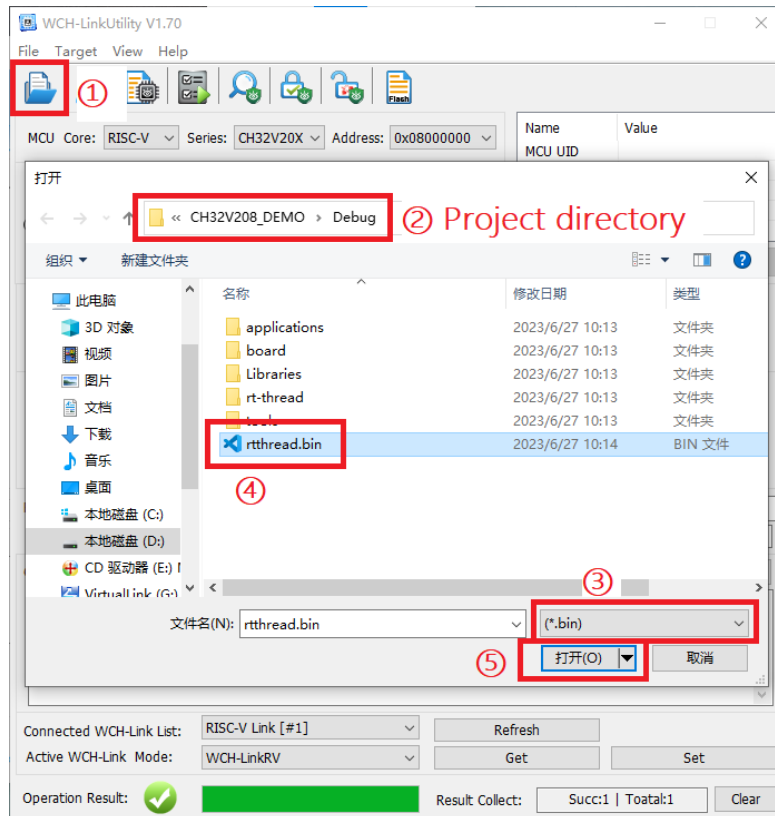
3.1.1 Connect WCH-Link and CH32V208W development board.



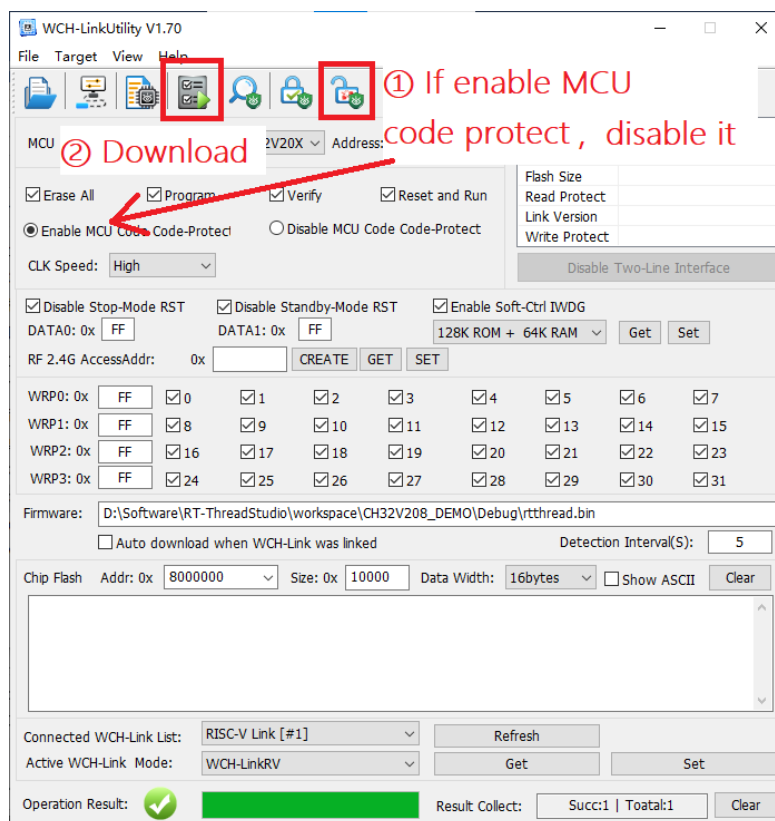
3.1.2 Check whether WCH-Link is configured correctly.



3.1.3 Select compile file.

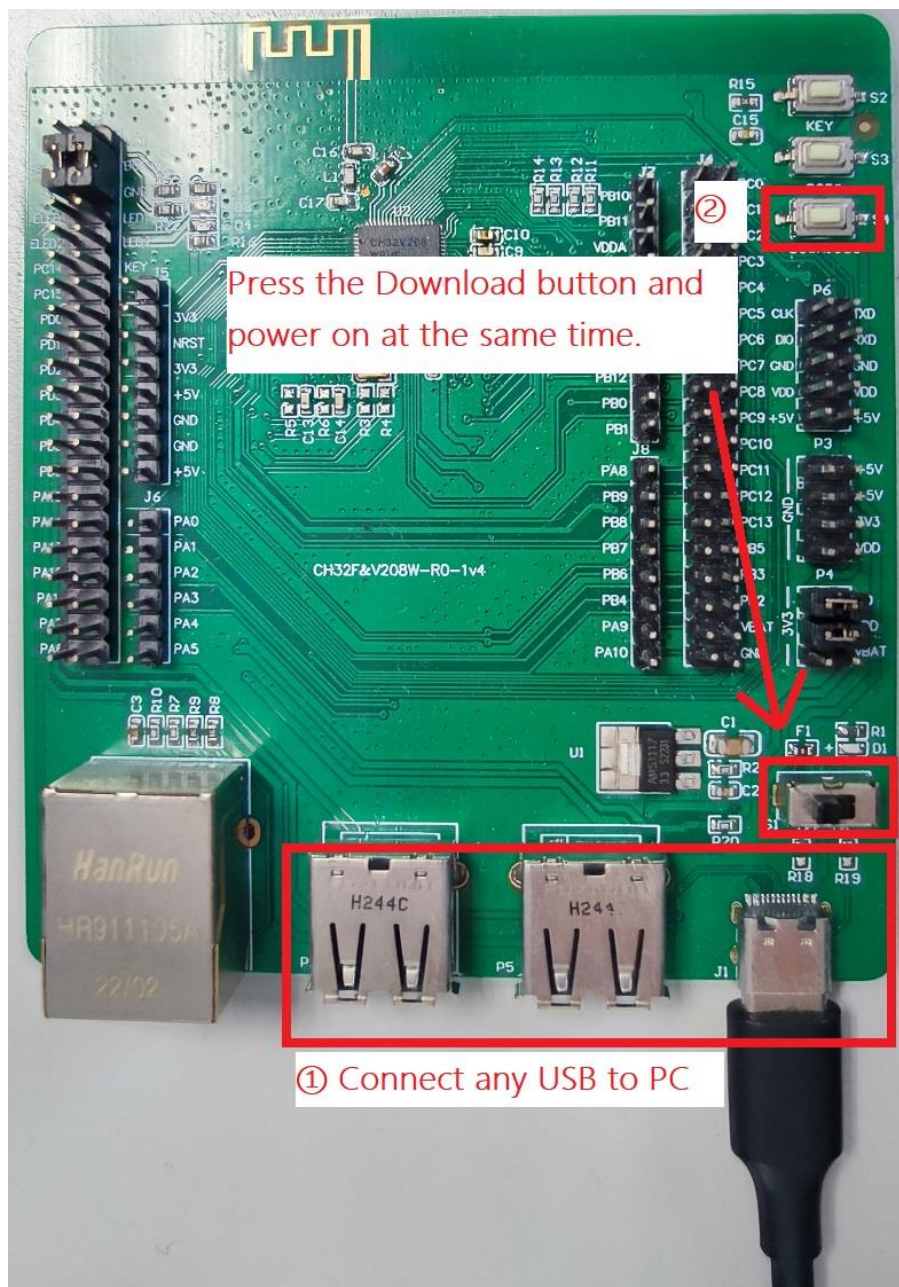


3.1.4 Download.

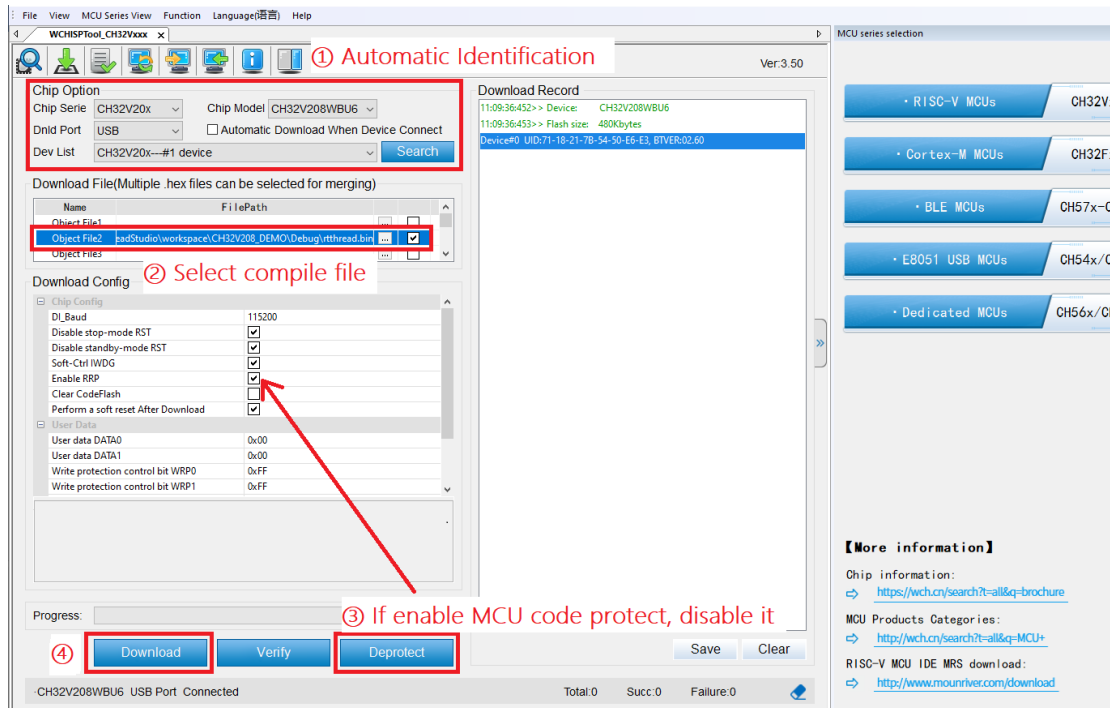


3.2 Use WCHISPTool to download

3.2.1 Connect PC and CH32V208W development board via USB. After pressing the Download button, power up the development board so that the CH32V208 will run the Bootloader.



3.2.2 Select compile file and download.



4. Result

Print information of UART1.

