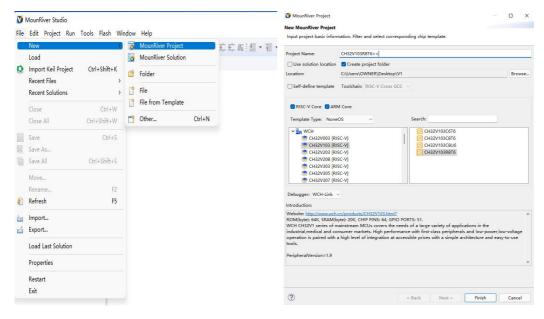
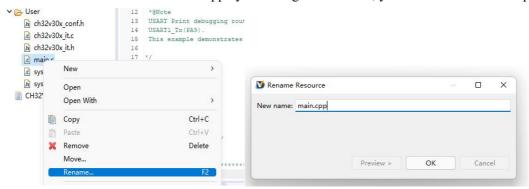
## Create a C++ project based on MRS

Create a C++ project based on MRS . First build a main.c project, and then modifying the configuration so that the .cpp file calls the C++ compiler to compile it. The detailed steps are as follows.

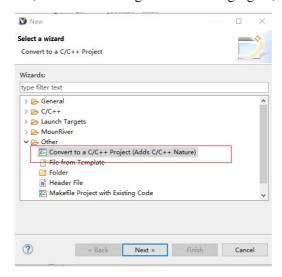
1. Normally create a project based on .C



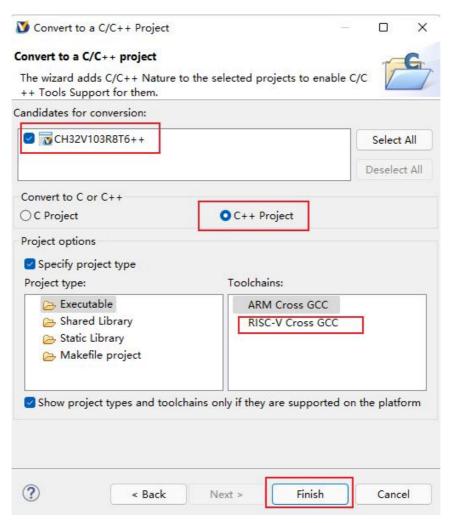
2. Make the main.c file into main.cpp by renaming it. Of course, you can also add a new .cpp by adding a File.



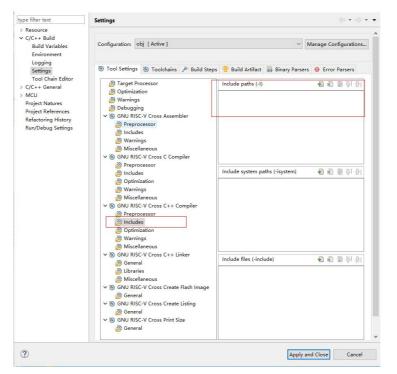
3. Right-click the project, new->other, select it according to the following figure, and then click Next.



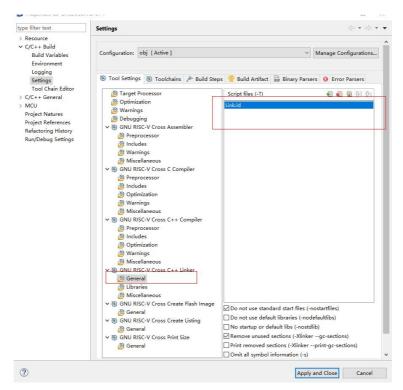
4. Configure as shown below



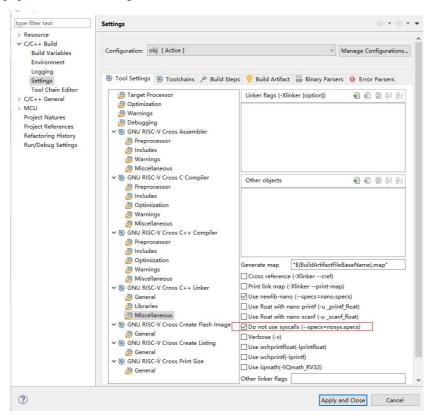
5. The original settings will become the default and need to be added again.



Add the header file path in the above image.



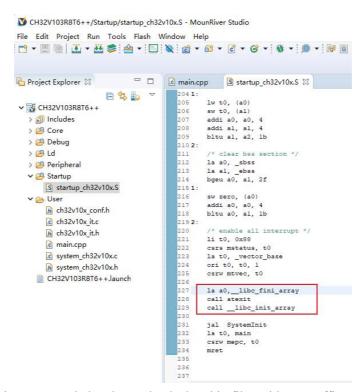
Add the link script path in the above figure.



The above figure uses the default function, if the original project uses the library, the library also needs to be added again after conversion.

6. Add the C++ initialization function before the main function is called in the startup file

```
la a0,__libc_fini_array
call atexit
call __libc_init_array
```



7. Two more empty functions are needed and must be declared in files with a .c suffix

```
void _fini(){}
void init(){}
                    MCH32V103R8T6++/Debug/debug.c - MounRiver Studio
                    File Edit Project Run Tools Flash Window Help
                    □ □ I main.cpp S startup_ch32v10x.S I debug.c ⊠
                                                 > 🐉 Binaries
                       > 🛍 Includes
                      > 🕮 Core
                      ∨ 😕 Debug
                        debug.c
                      > 29 Ld
                      > 🕮 Peripheral
                      ∨ 😕 Startup
                         S startup ch32v10x.S
                                                 182⊖ void * sbrk (ptrdiff t incr)
                       > 濅 obj
                                                 183 {
184
                       🗸 🗁 User
                                                      extern char _end[];
                         h ch32v10x_conf.h
                                                       extern char _heap_end[];
static char *curbrk = _end;
                         ch32v10x_it.c
                         h ch32v10x_it.h
                                                       if ((curbrk + incr < _end) || (curbrk + incr > _heap_end))
return NULL - 1;
                         main.cpp
system_ch32v10x.c
                          h system_ch32v10x.h
```

8. At this point the project file environment has been configured, the files with the .cpp suffix will call the C++ compiler to compile.