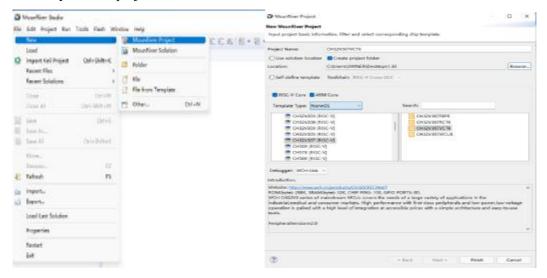
## Dear Kurt

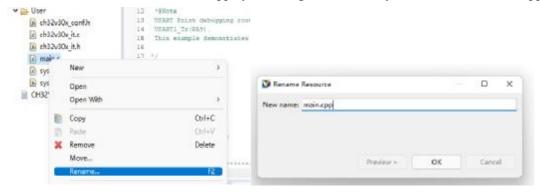
Thank you for your suggestion. Regarding your question about creating a C++ project using MRS, the following answer is given.

You can 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.

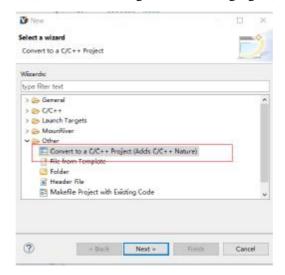
1. Normally create a project based on .C



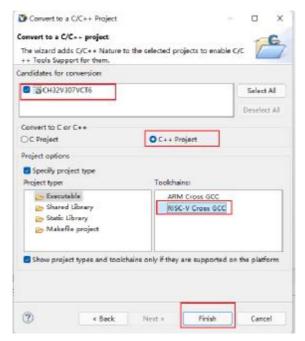
2. Make the main.c file into main.cpp by renaming it. Of course, you can also add a new .cpp by adding a File.



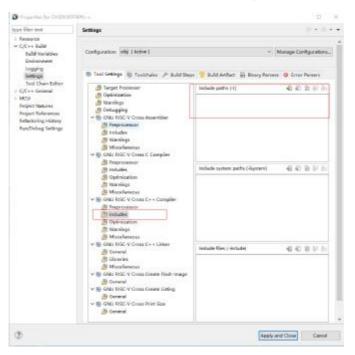
3. Right-click the project, new->other, select it according to the following figure, and then click Next.



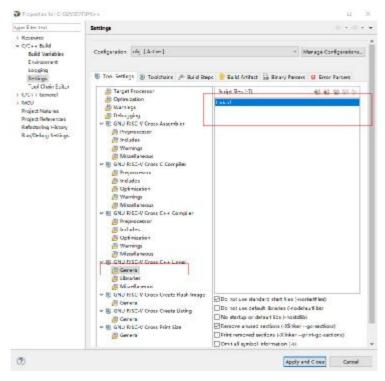
4. Configure as shown below



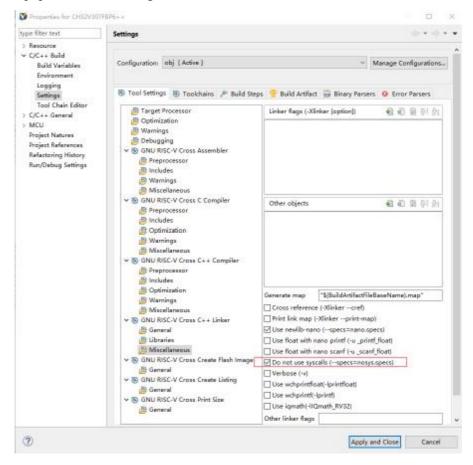
5. The original settings will become the default and need to be added again.



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
```

```
1 🖸 debug.c 🔝 startup_ch32v30x_D8C.S 🌣
            /* Enable nested and hardware stac
     371
            li t0, 0xlb
           csrw 0x804, t0
     372
     373
             /* Enable floating point and inter:
     374
            li t0, 0x6088
     375
     376
            csrs mstatus, t0
     377
            la t0, _vector_base
ori t0, t0, 3
     378
     379
     380
            csrw mtvec, t0
           la a0, __libc_fini_array
     382
     383
            call atexit
            call __libc_init_array
     384
     385
            jal SystemInit
     386
     387
            la t0, main
     388
            csrw mepc, t0
     389
            mret
     390
     391
     392
```

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

```
void _fini(){}
void _init(){}
```

```
debug.c 

S startup_ch32v30x_D8C,S
 1729/*************************
 173 * @fn
              _sbrk
 174 *
 175 * @brief Change the spatial position of d
 176
      * @return size: Data length
 177
 178 */
 179@ void *_sbrk (ptrdiff_t incr)
 180 {
         extern char _end[];
 181
       extern char _heap_end[];
static char *curbrk = _end;
 182
 183
 184
 185⊖
        if ((curbrk + incr < _end) || (curbrk +
 186
         return NULL - 1;
 187
        curbrk += incr;
         return curbrk - incr;
 189
 190 }
 191
 192 void _fini(){}
 193 void _init(){}
194
```

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