如何集成MCAL到S32DS？

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**前言**

S32DS默认支持配置，但它是基于SDK，使用LLD库的代码来实现具体功能。但MCAL代码如何在S32DS工程当中运行？

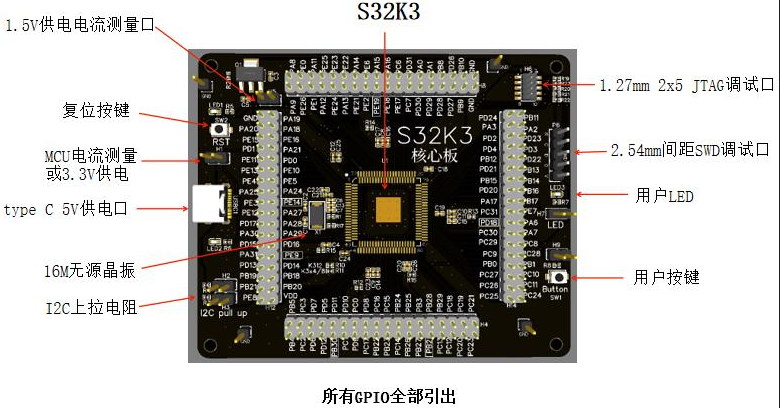
本文档指导如何新建S32DS工程，并使用EB的配置代码，编译运行程序的步骤。不指导EB的配置过程。

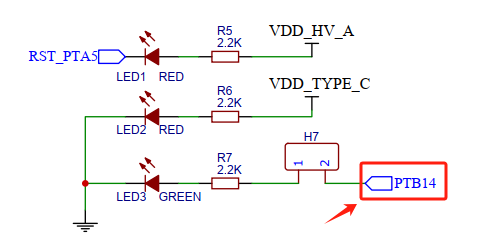
**1 目标和实验环境**

主控芯片：S32K358

编译器：S32DS for S32 Platform

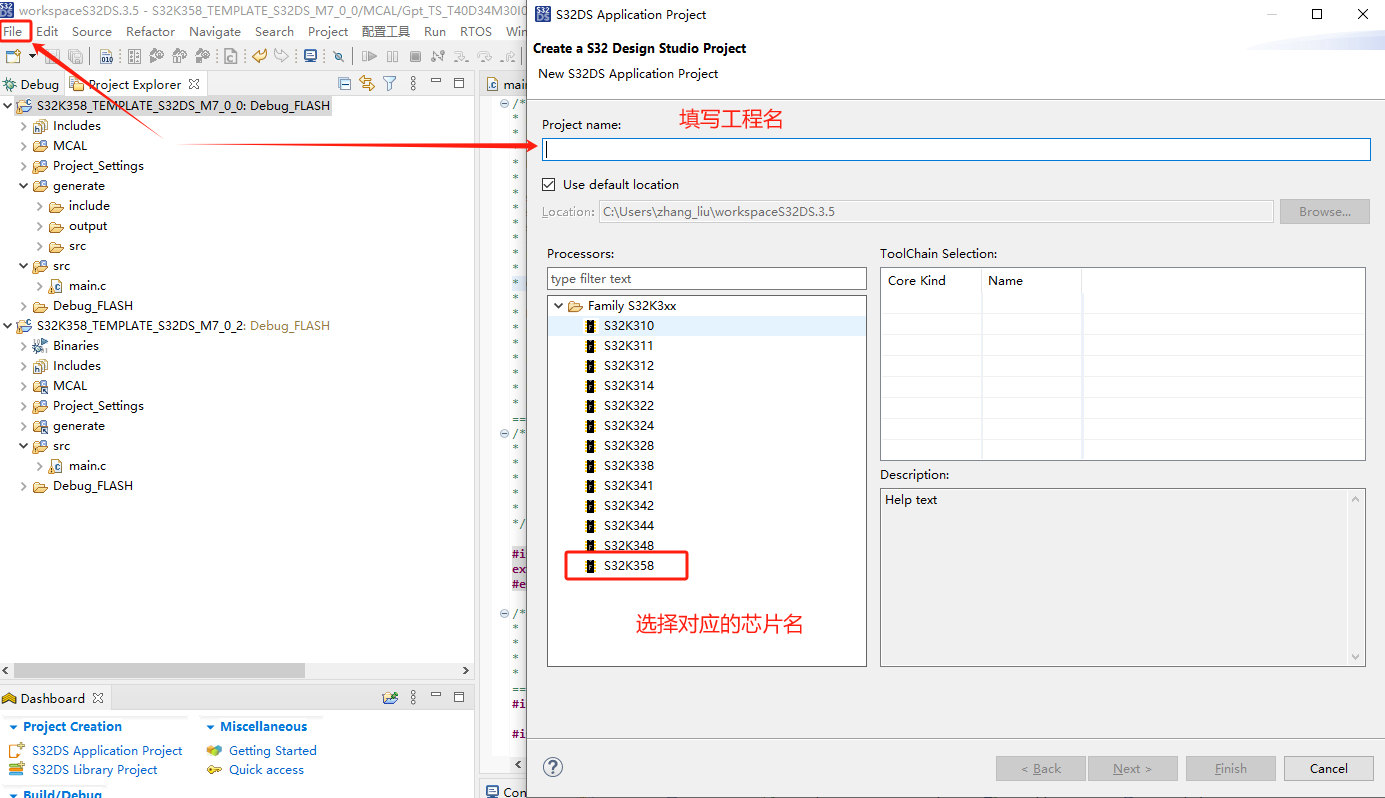
实验环境：

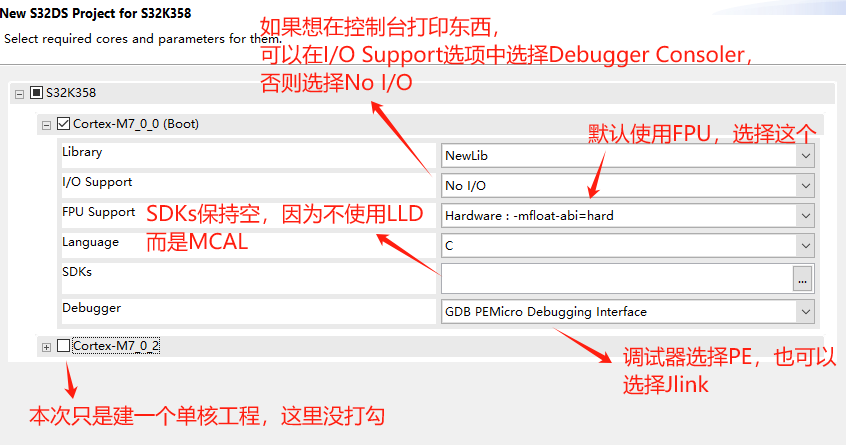


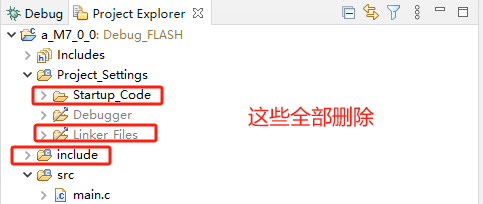


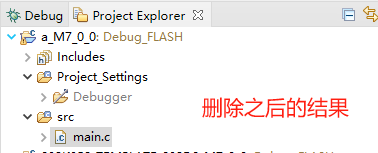
实验目的：通过PTB14点亮LED灯

**2 新建工程**

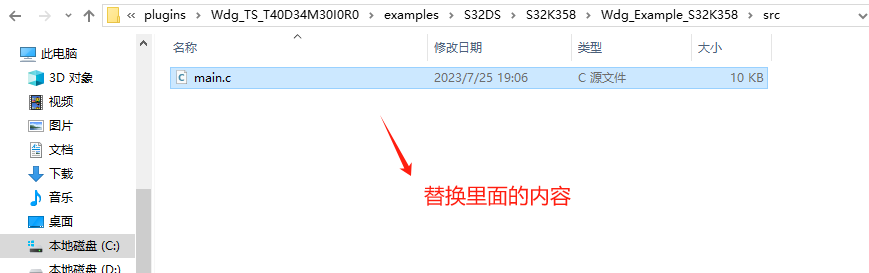


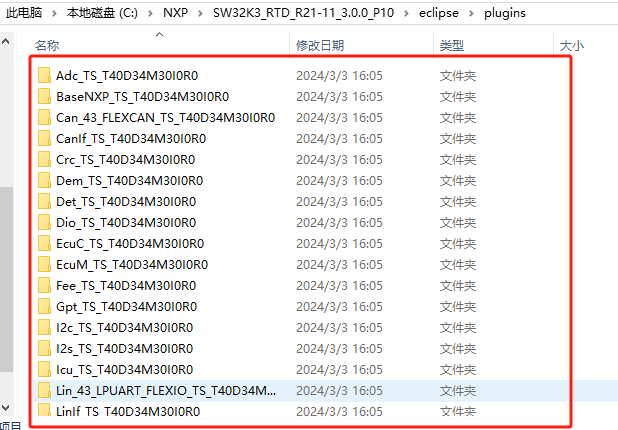




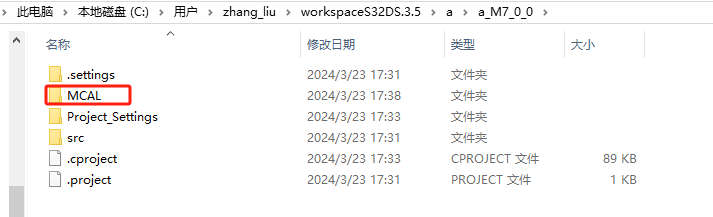


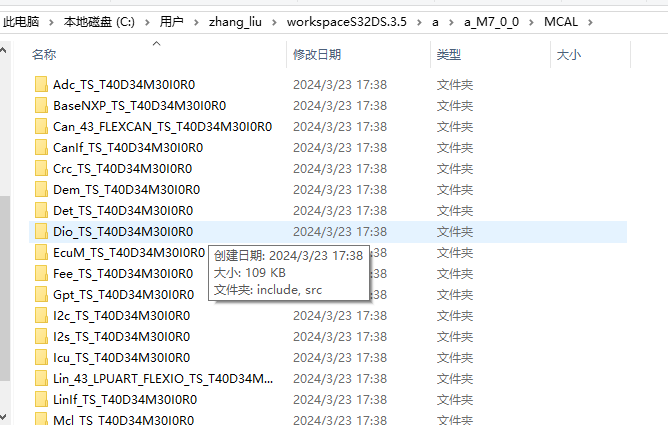
Main.c文件的内容，删除，从例程里替换



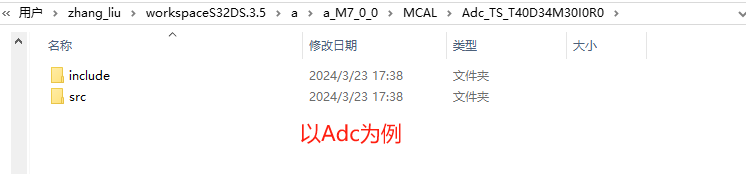


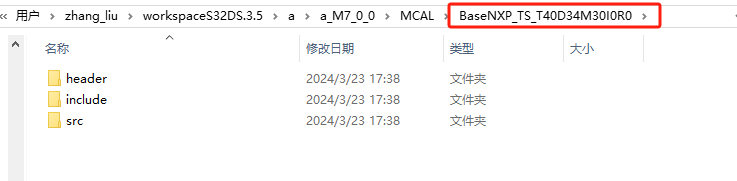
工程所在的文件夹下新建MCAL文件夹，复制这些所有

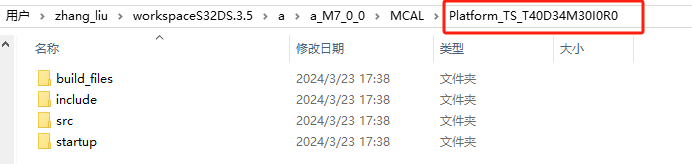




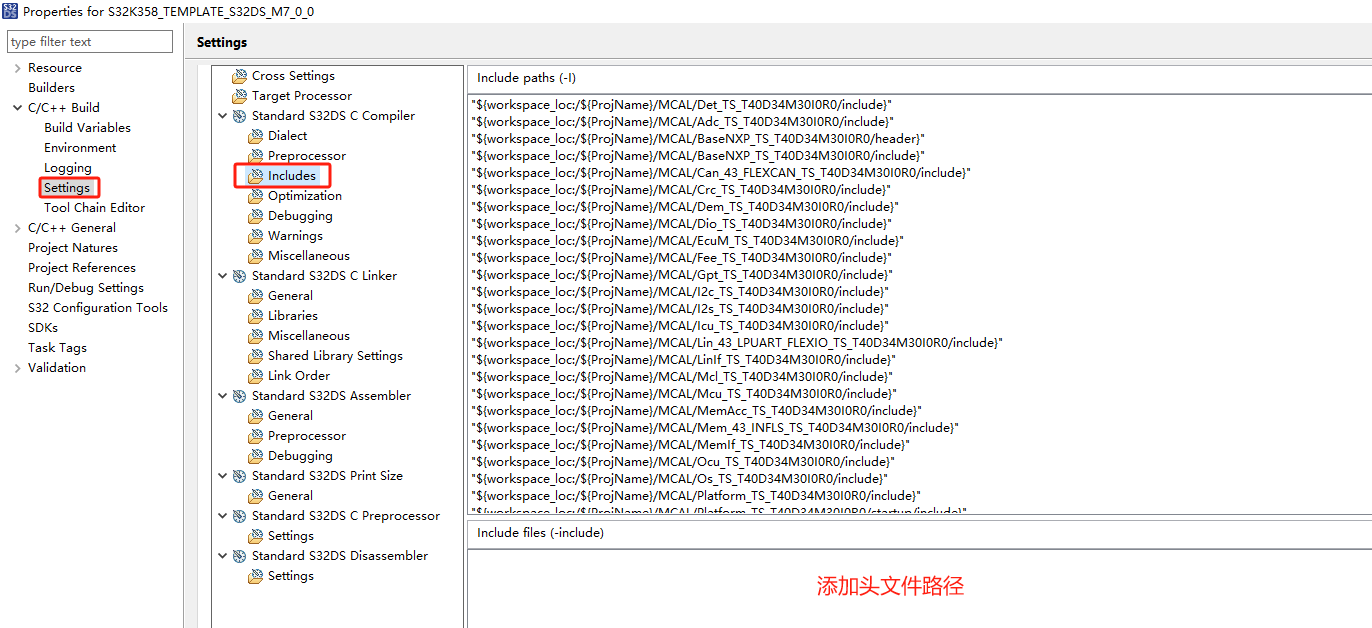
Platform和BaseNXP特殊，除此之外，仅保留src、include文件夹







添加头文件路径



下面的内容可以直接复制粘贴：

"${workspace\_loc:/${ProjName}/generate/include}"

"${workspace\_loc:/${ProjName}/MCAL/Det\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Adc\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/BaseNXP\_TS\_T40D34M30I0R0/header}"

"${workspace\_loc:/${ProjName}/MCAL/BaseNXP\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Can\_43\_FLEXCAN\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Crc\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Dem\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Dio\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/EcuM\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Fee\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Gpt\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/I2c\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/I2s\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Icu\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Lin\_43\_LPUART\_FLEXIO\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/LinIf\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Mcl\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Mcu\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/MemAcc\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Mem\_43\_INFLS\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/MemIf\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Ocu\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Os\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Platform\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Platform\_TS\_T40D34M30I0R0/startup/include}"

"${workspace\_loc:/${ProjName}/MCAL/Port\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Pwm\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Rm\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Rte\_TS\_T40D34M30I0R0/include}"

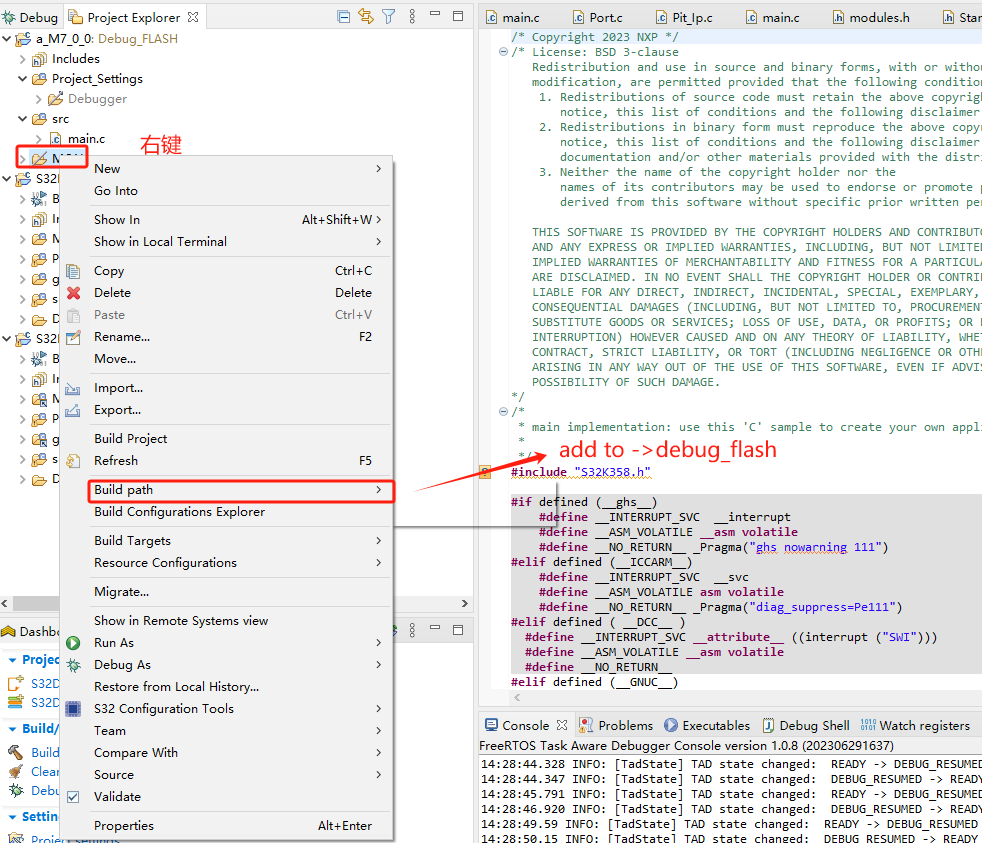
"${workspace\_loc:/${ProjName}/MCAL/Sent\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Spi\_TS\_T40D34M30I0R0/include}"

"${workspace\_loc:/${ProjName}/MCAL/Uart\_TS\_T40D34M30I0R0/include}"

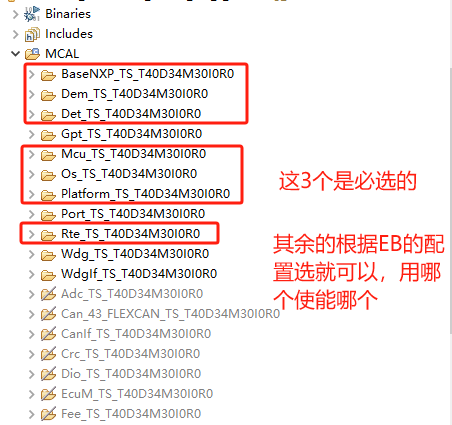
"${workspace\_loc:/${ProjName}/MCAL/Wdg\_TS\_T40D34M30I0R0/include}"

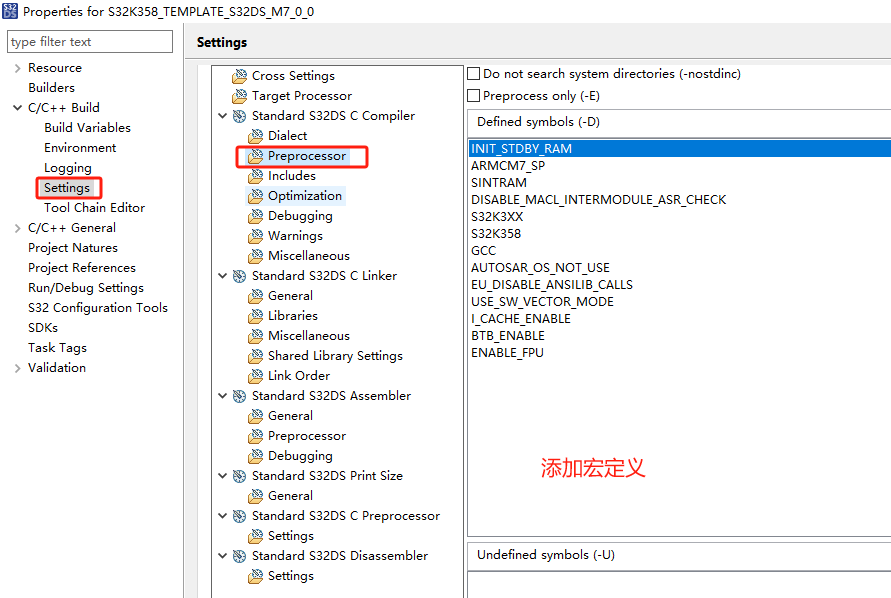
"${workspace\_loc:/${ProjName}/MCAL/WdgIf\_TS\_T40D34M30I0R0/include}"



先在工程名上，右键，refresh，刷新一下，MCAL文件夹会出现

之后添加到编译状态，之后要根据使用了那些模块，没使用哪些模块，将没使用的模块，移出Debug\_Flash



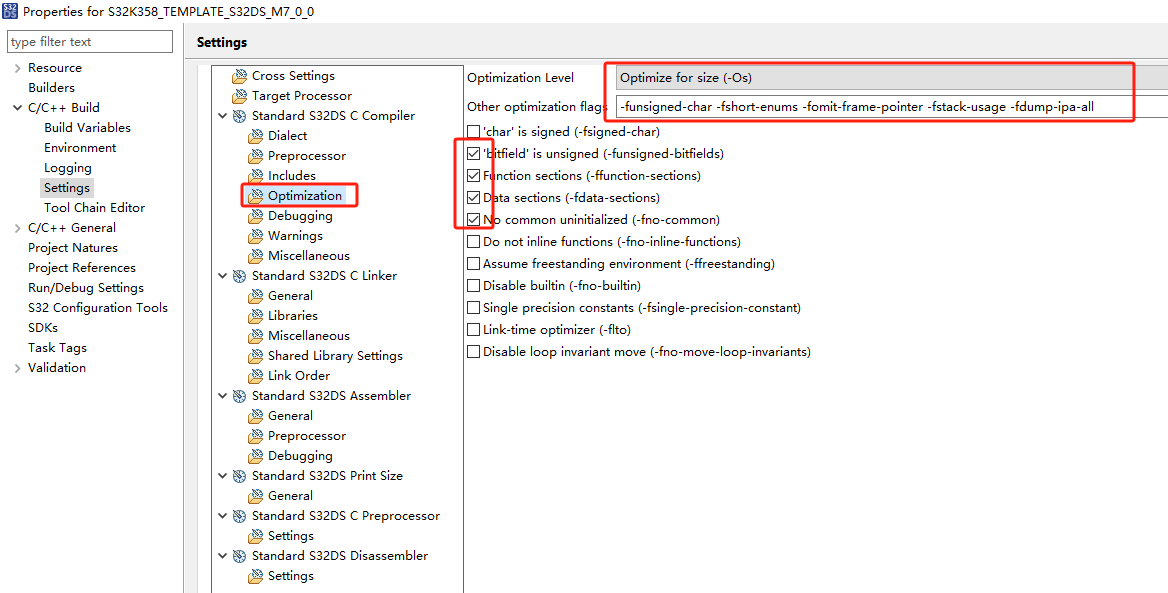


下面的内容可以复制粘贴：

注意：如果使用的调试器是PE，并且没有在创建工程的时候使用FPU，就不要在这里定义I\_CACHE\_ENABLE 和D\_CACHE\_ENABLE，否则会影响调试。

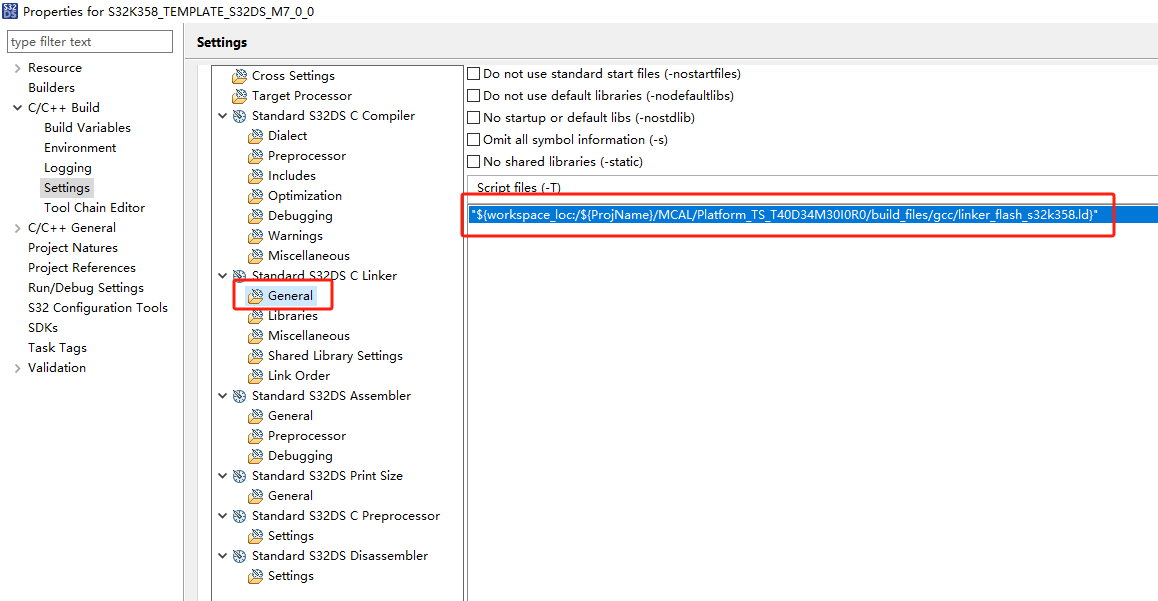
这意味着激活FPU，需要两个条件：

1. 创建工程的时候启用FPU
2. 这里的宏定义ENABLE\_FPU



可以复制粘贴：

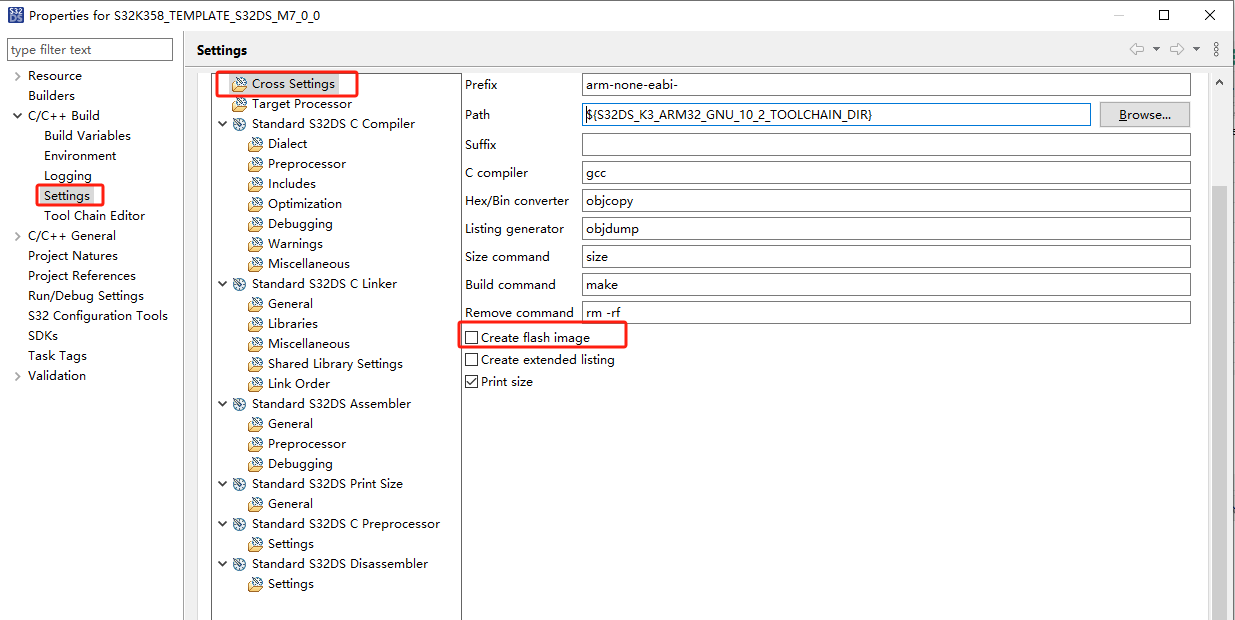
-funsigned-char -fshort-enums -fomit-frame-pointer -fstack-usage -fdump-ipa-all

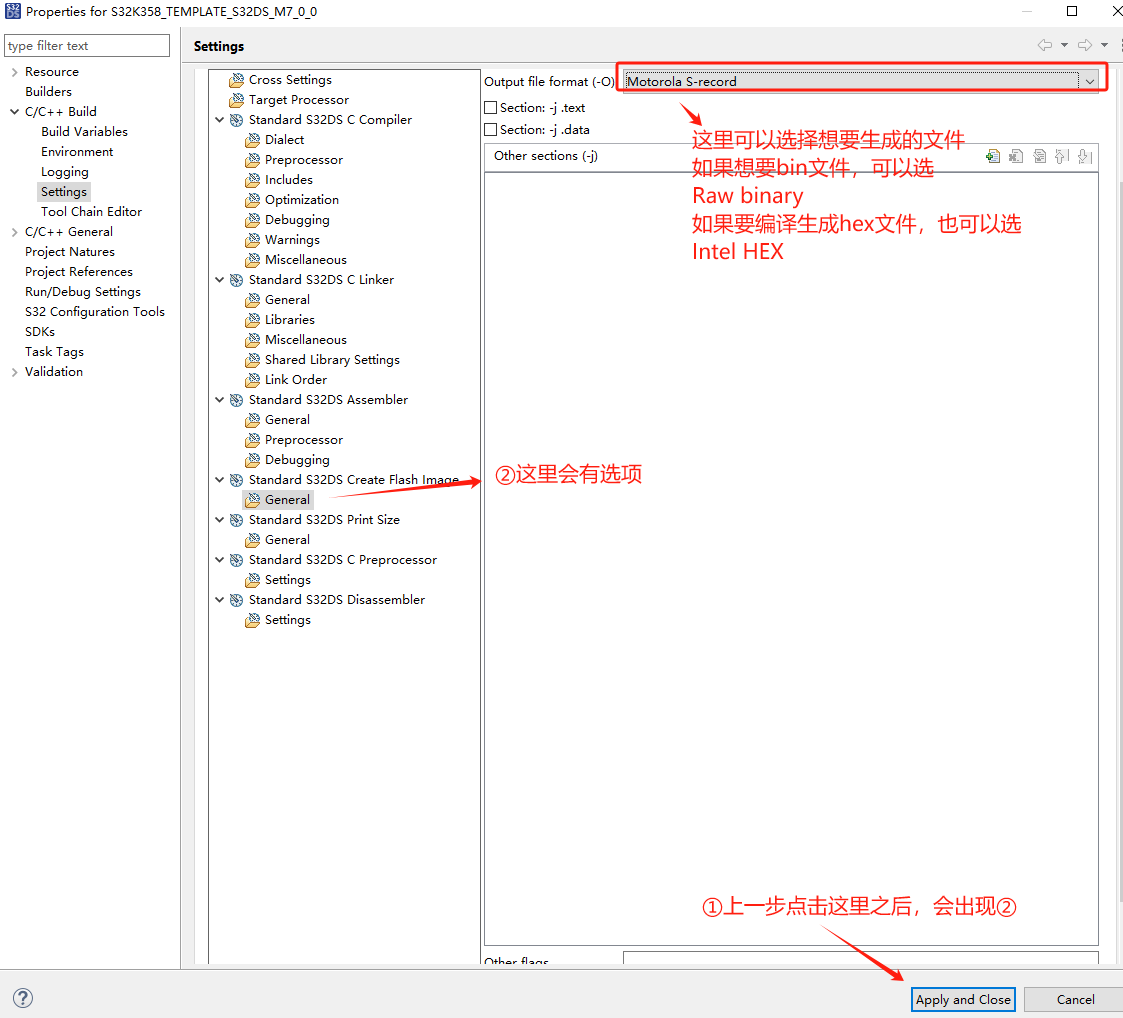


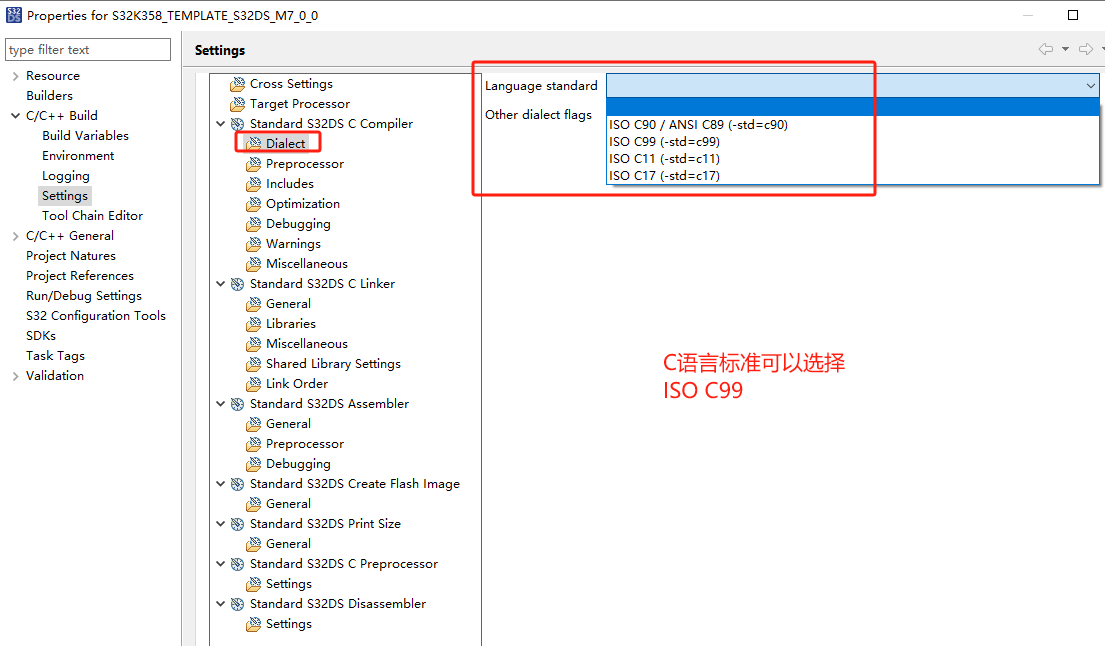
可以复制粘贴：

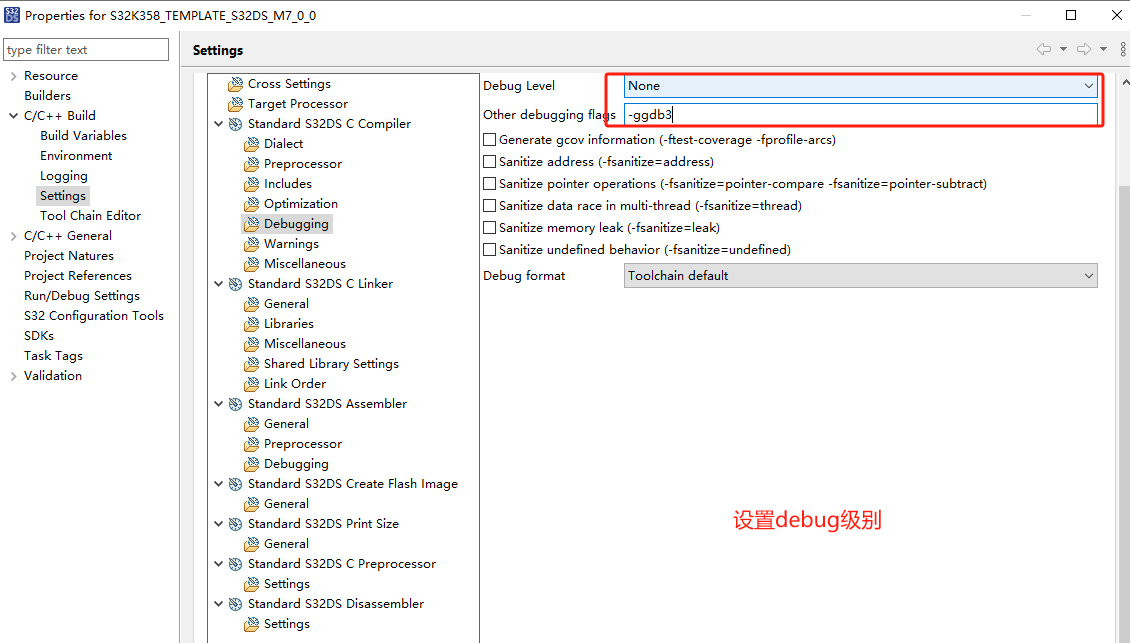
"${workspace\_loc:/${ProjName}/MCAL/Platform\_TS\_T40D34M30I0R0/build\_files/gcc/linker\_flash\_s32k358.ld}"

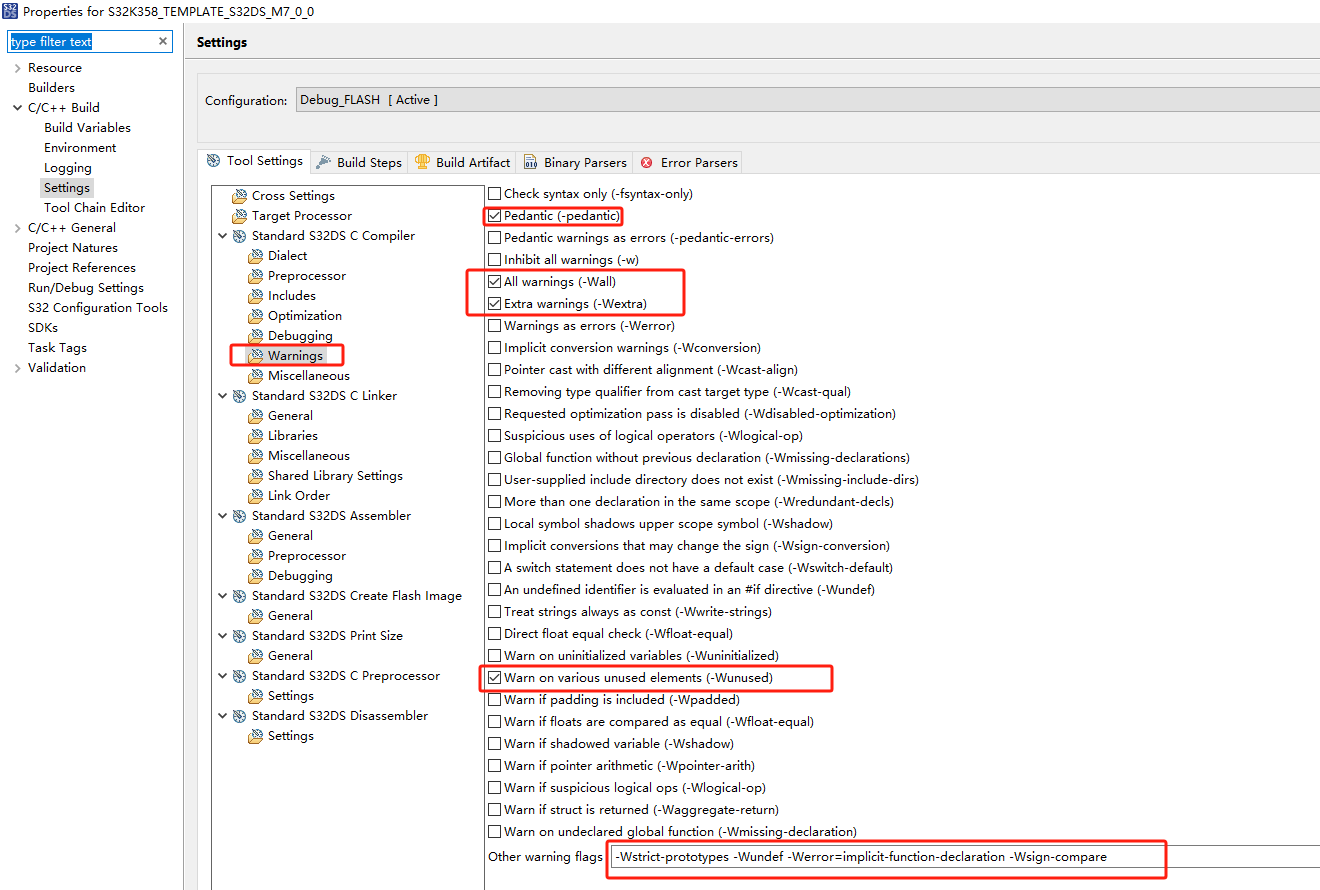
如果需要生成.bin .s19 .mot等文件，可以勾选 Create flash image











下面的可以复制粘贴

-Wstrict-prototypes -Wundef -Werror=implicit-function-declaration -Wsign-compare

