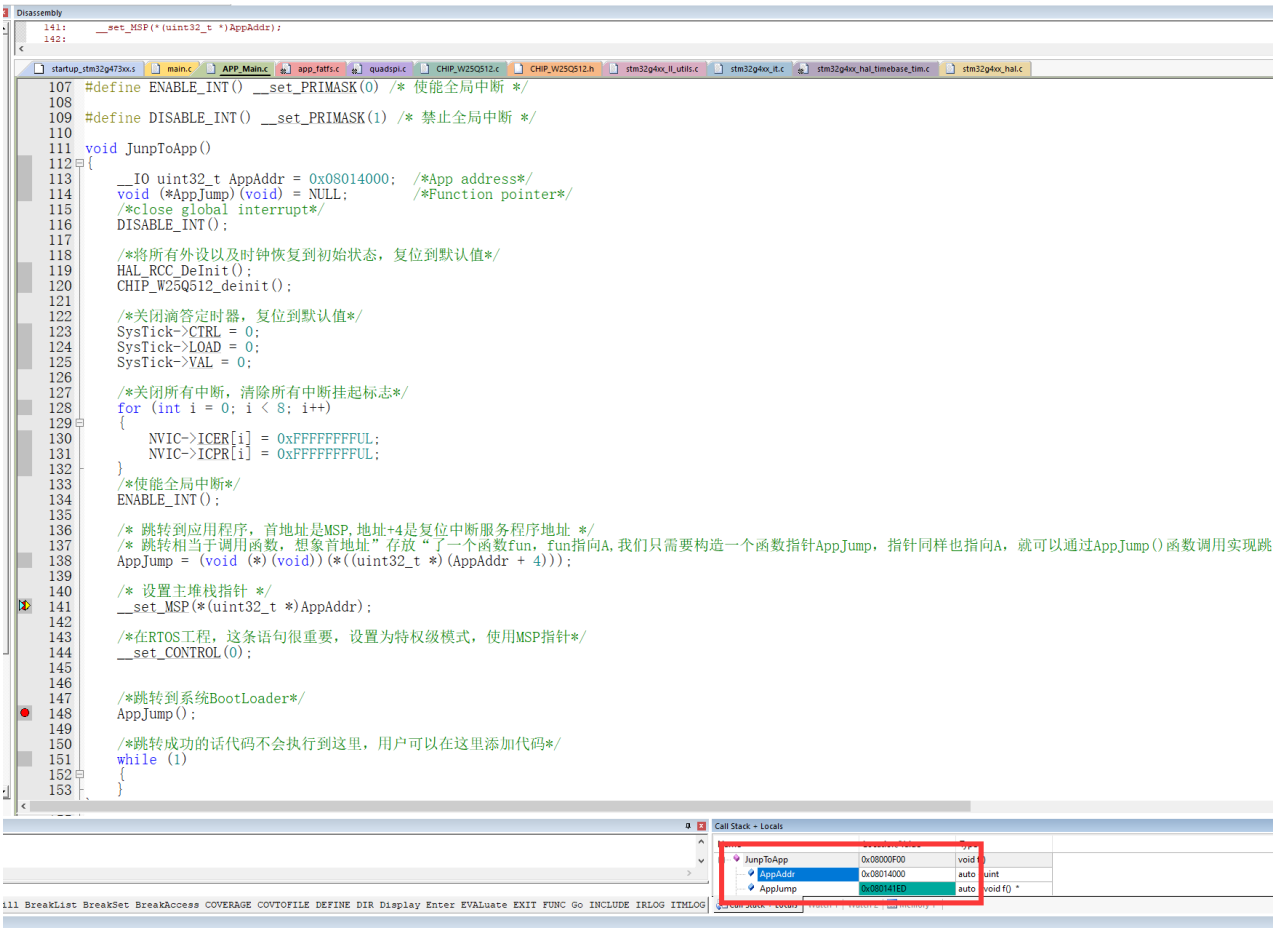
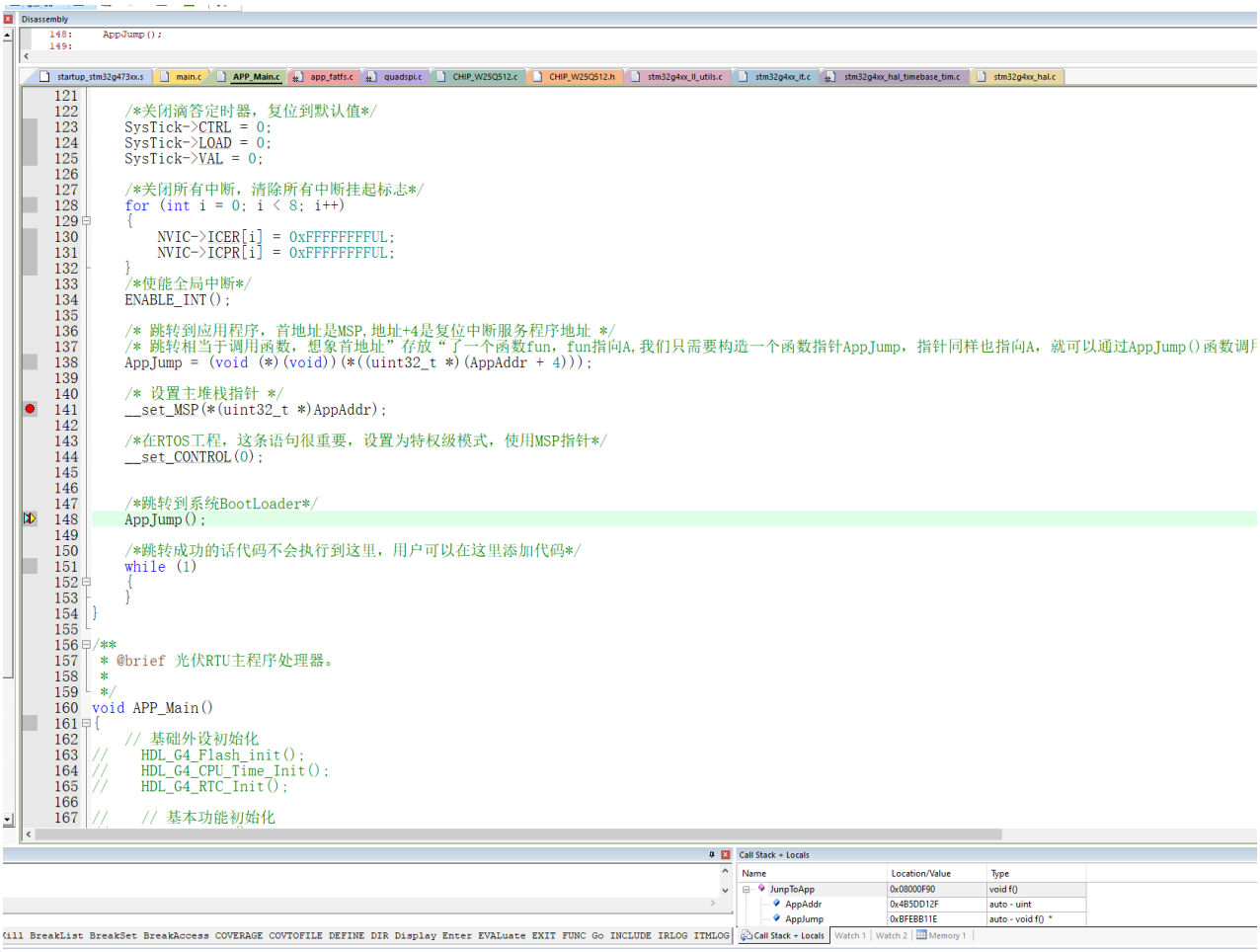
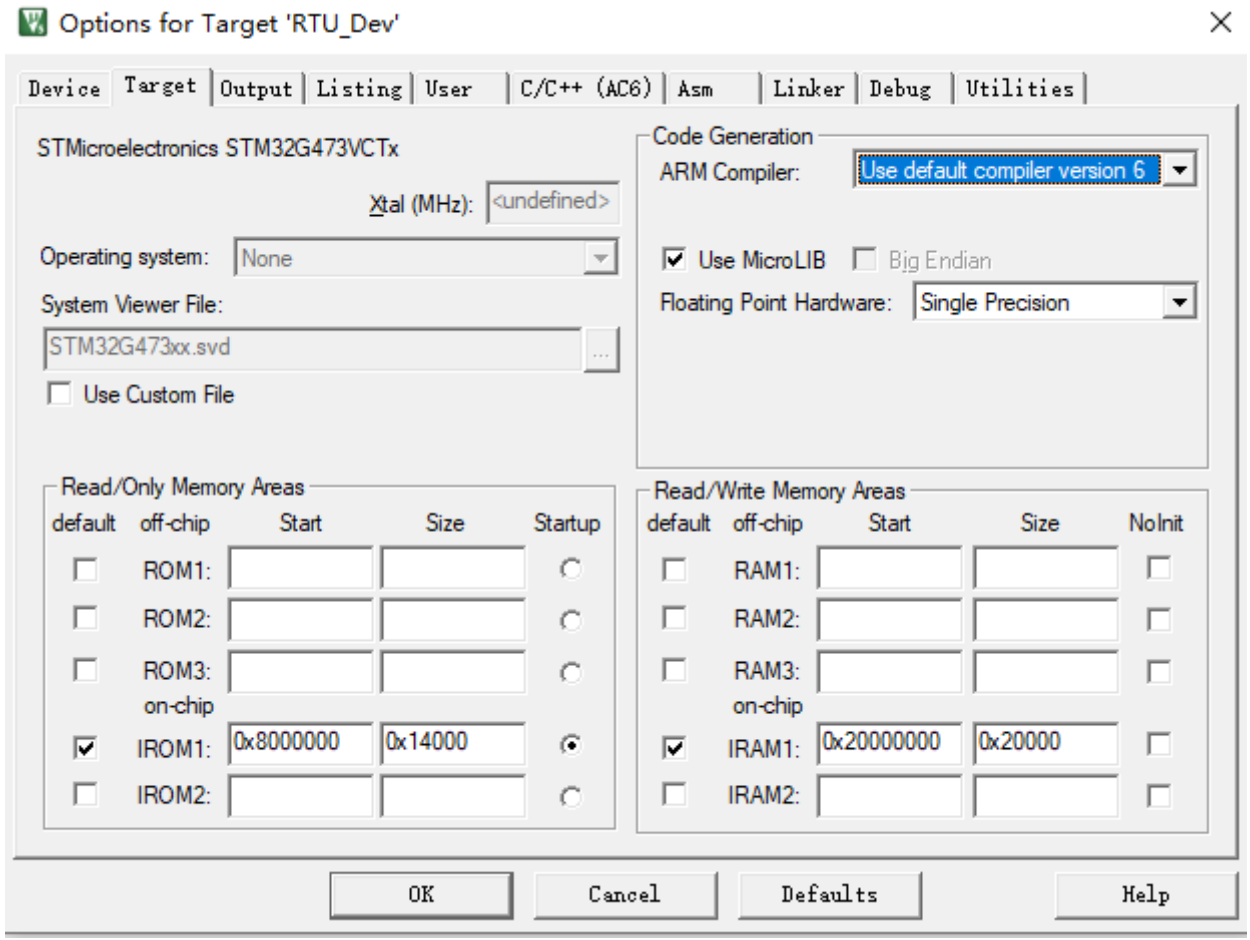
Bootloader学习遇到的问题

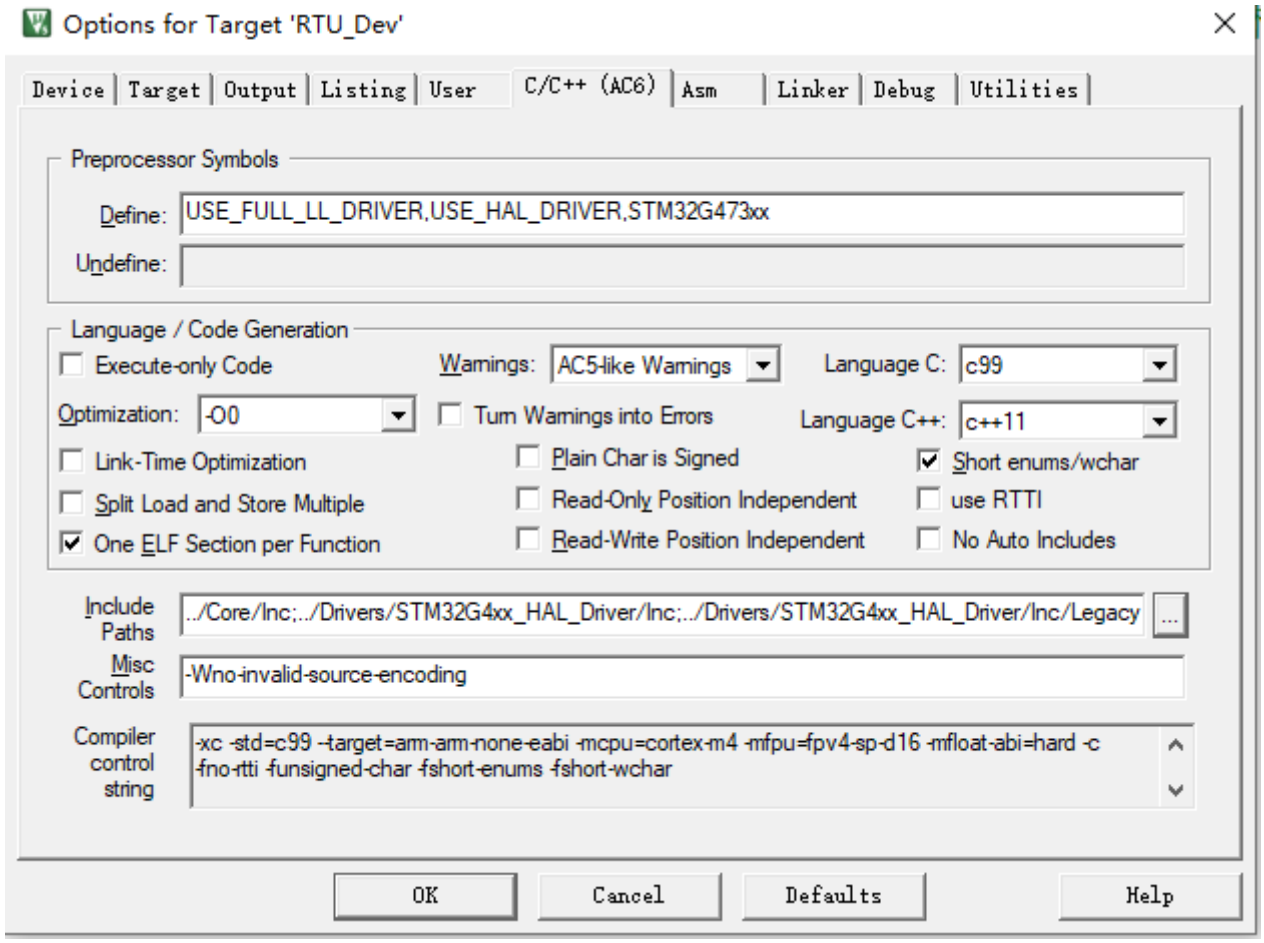
1. 如图，我使用教程中给出的的跳转方法，出现了执行“AppJump();”语句跳转失败，进入HardFault_Handler的情况。我排查发现，问题出在**设置主堆栈指针**这句代码，在设置前AppJump的值如图1所示是正确的值，但是当执行完**set_MSP设置主堆栈指针后AppJump的值变成了一个看起来错误的值。我试着删除**set_MSP设置主堆栈指针的语句后能够正常跳转。





2. 程序中开了一个定时器7外设用于系统滴答时钟(之前开发RTOS的工程改的)和几个GPIO外设，没有其他的外设开启。
3. 开发使用的芯片为STM32G473VCT6。
4. Bootloader编译选项如下，App程序和Bootloader程序都是O0优化。使用AC6编译器（AC6.19）。


Options for Target 'RTU_Dev'
Device
Target
Output
Listing
User
C/C++ (AC6)
Asm
Linker
Debug
Utilities
STMicroelectronics STM32G473VCTx
Xtal (MHz):
<undefined>
Operating system:
None
System Viewer File:
STM32G473xx.svd
Use Custom File
Code Generation
ARM Compiler:
Use default compiler version 6
Use MicroLIB
Big Endian
Floating Point Hardware:
Single Precision
Read/Only Memory Areas
default
off-chip
Start
Size
Startup
ROM1:
ROM2:
ROM3:
on-chip
IROM1:
0x8000000
0x14000
IROM2:
Read/Write Memory Areas
default
off-chip
Start
Size
NoInit
RAM1:
RAM2:
RAM3:
on-chip
IRAM1:
0x20000000
0x20000
IRAM2:
OK
Cancel
Defaults
Help


Options for Target 'RTU_Dev'
Device
Target
Output
Listing
User
C/C++ (AC6)
Asm
Linker
Debug
Utilities
Preprocessor Symbols
Define:
USE_FULL_LL_DRIVER,USE_HAL_DRIVER,STM32G473xx
Undefine:
Language / Code Generation
Execute-only Code
Warnings:
AC5-like Warnings
Language C:
c99
Optimization:
-O0
Turn Warnings into Errors
Language C++:
c++11
Link-Time Optimization
Plain Char is Signed
Short enums/wchar
Split Load and Store Multiple
Read-Only Position Independent
use RTTI
One ELF Section per Function
Read-Write Position Independent
No Auto Includes
Include Paths
../Core/Inc;../Drivers/STM32G4xx_HAL_Driver/Inc;../Drivers/STM32G4xx_HAL_Driver/Inc/Legacy
Misc Controls
-Wno-invalid-source-encoding
Compiler control string
-xc -std=c99 --target=arm-arm-none-eabi -mcpu=cortex-m4 -mfpu=fpv4-sp-d16 -mfloat-abi=hard -c -fno-rtti -funsigned-char -fshort-enums -fshort-wchar
OK
Cancel
Defaults
Help