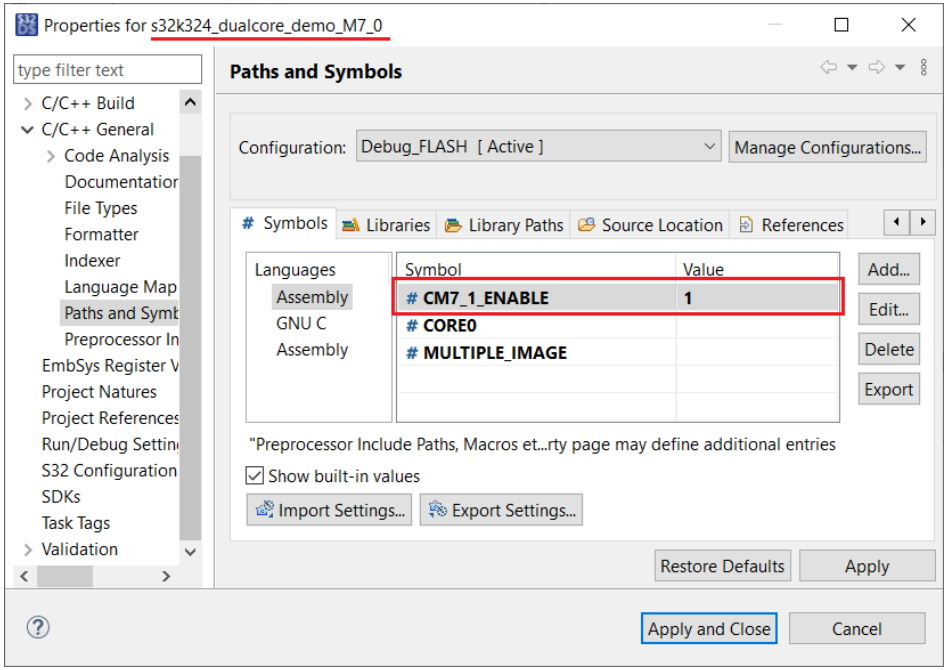
S32K324 DUAL CORES DEBUG WITH P&E MULTILINK

- Debug S32K324 Project when “CM7_1_ENALBE=1”
- Debug S32K324 Project when “CM7_1_ENALBE=0”

Example application
used in this document

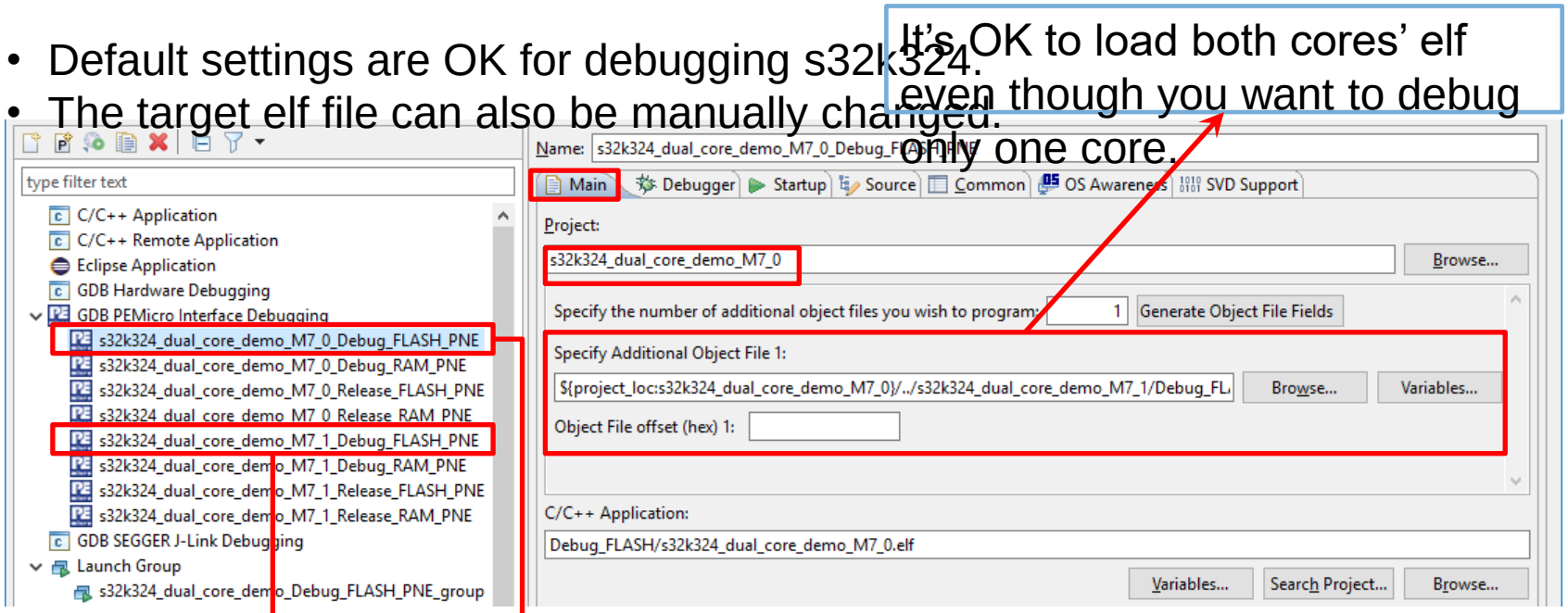
Debug S32K324 Project when “CM7_1_ENALBE=1”

- CM7_1 is enabled during boot. Debugger can connect to it during the debug launch.
- Check CM7_0 and CM7_1 projects debug settings
- Launch Group



Debug S32K324 dual-core projects

- Default settings are OK for debugging s32k324.
- The target elf file can also be manually changed.



It's OK to load both cores' elf even though you want to debug only one core.

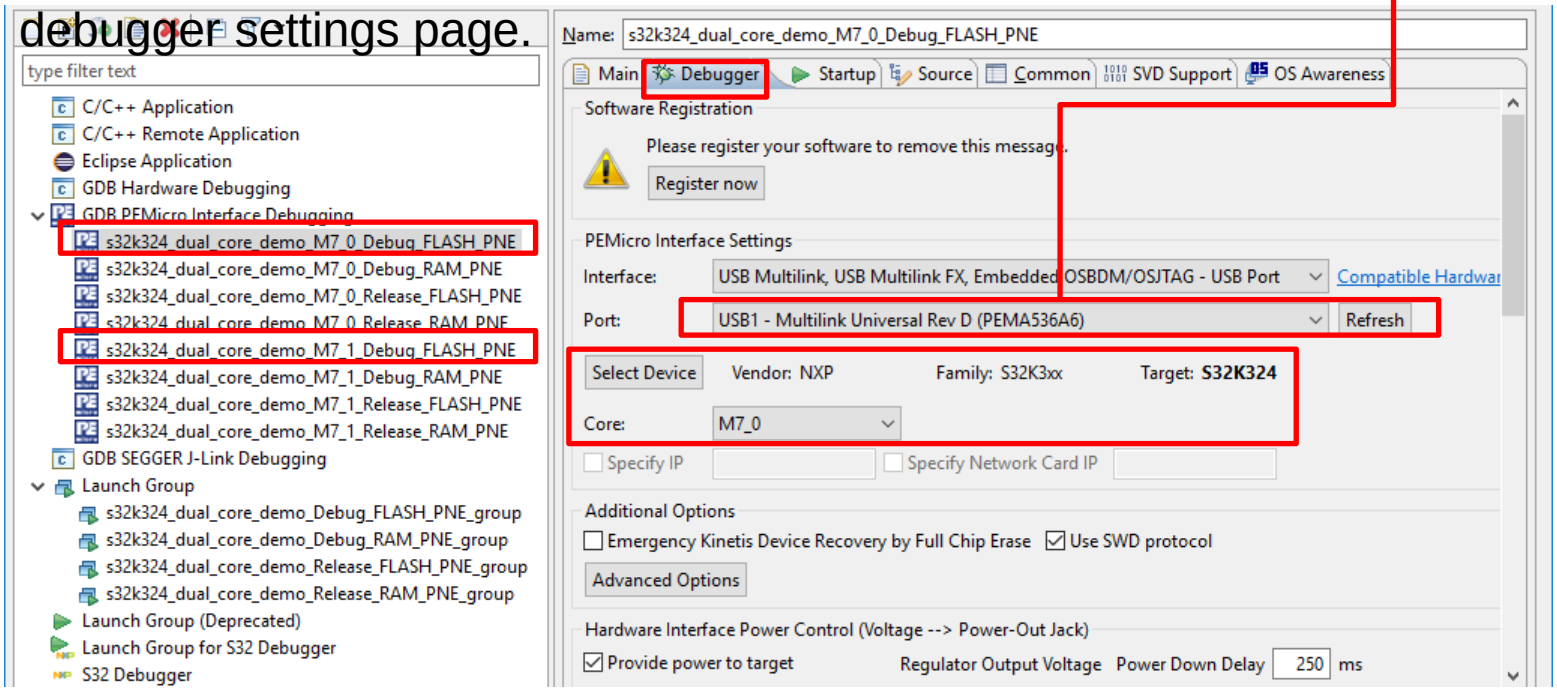
You can launch this configuration to debug CM7_0 only

You can launch this configuration to debug CM7_1 after CM7_0 is already connected by the debugger

Debug S32K324 dual-core projects

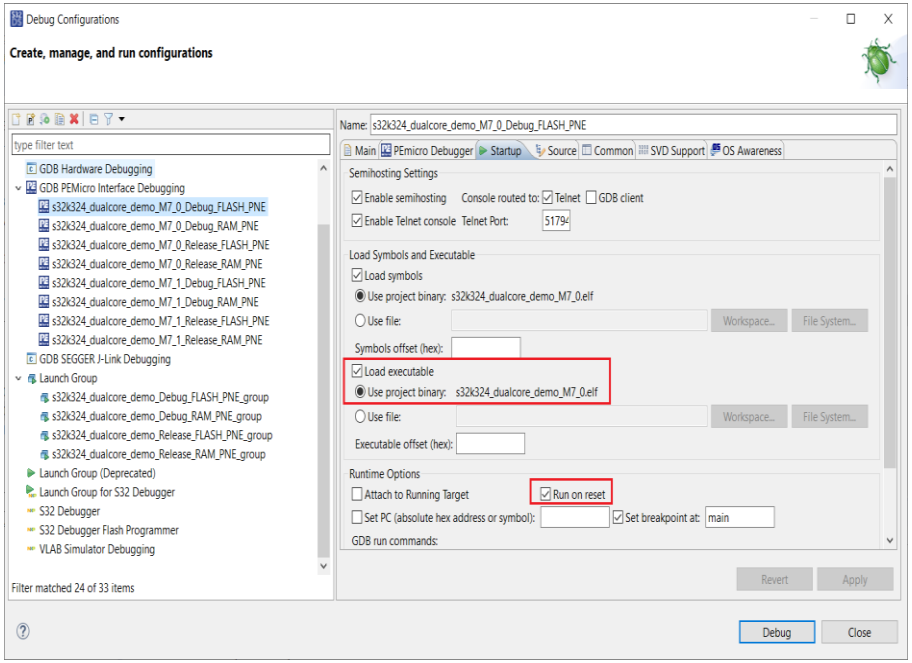
If a P&E multilink debugger or an OpenSDA debugger is connected to your PC, it can be seen in this drop-down list.

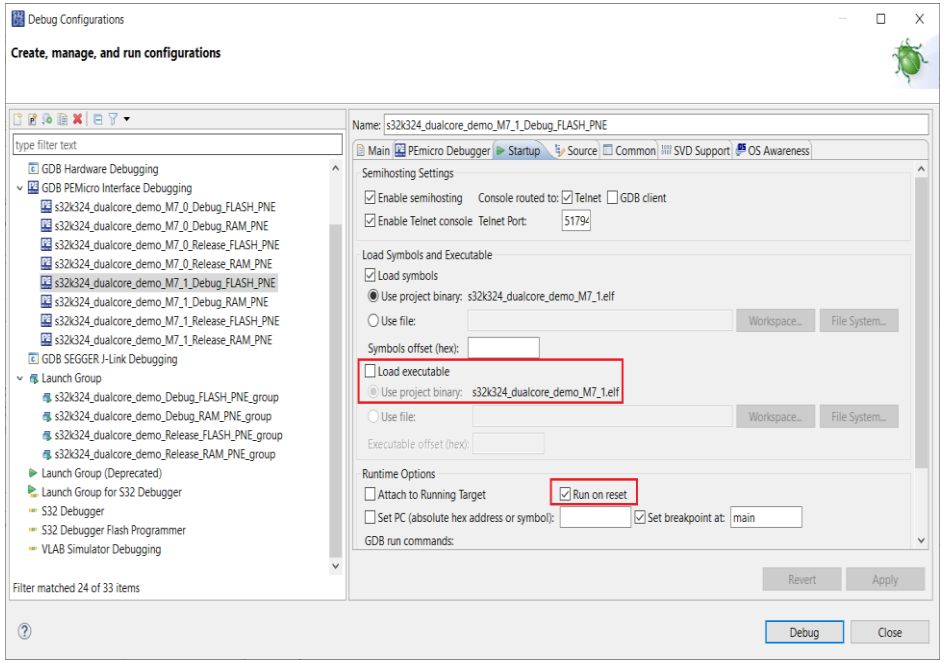
- Default settings are OK for debugging s32k324.
- The target device type can be changed in the debugger settings page.



Debug S32K324 dual-core projects

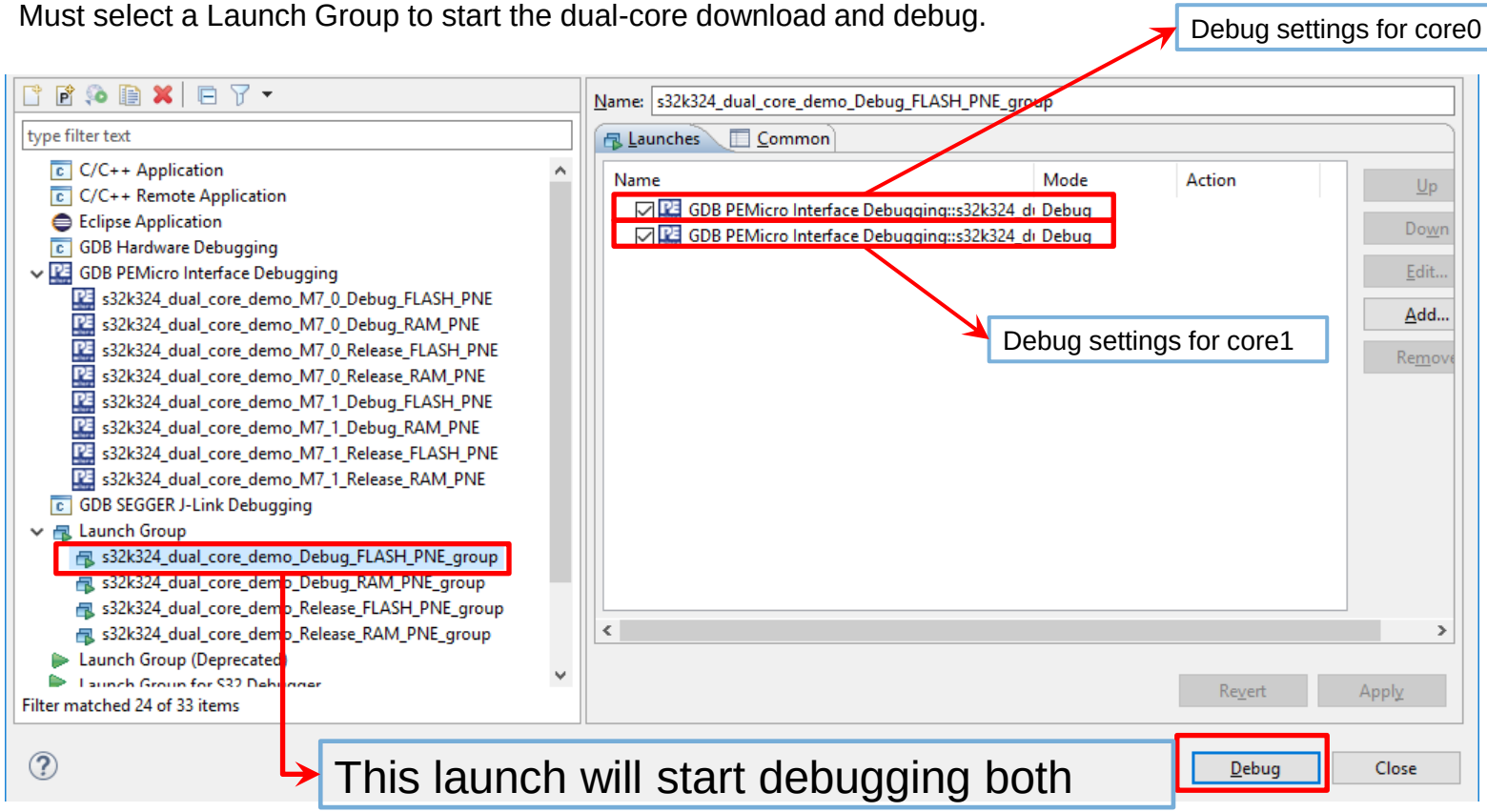
- Default settings are OK for debugging s32k324.
- The target device type can be changed in the





Debug S32K324 dual-core projects – launch debug process

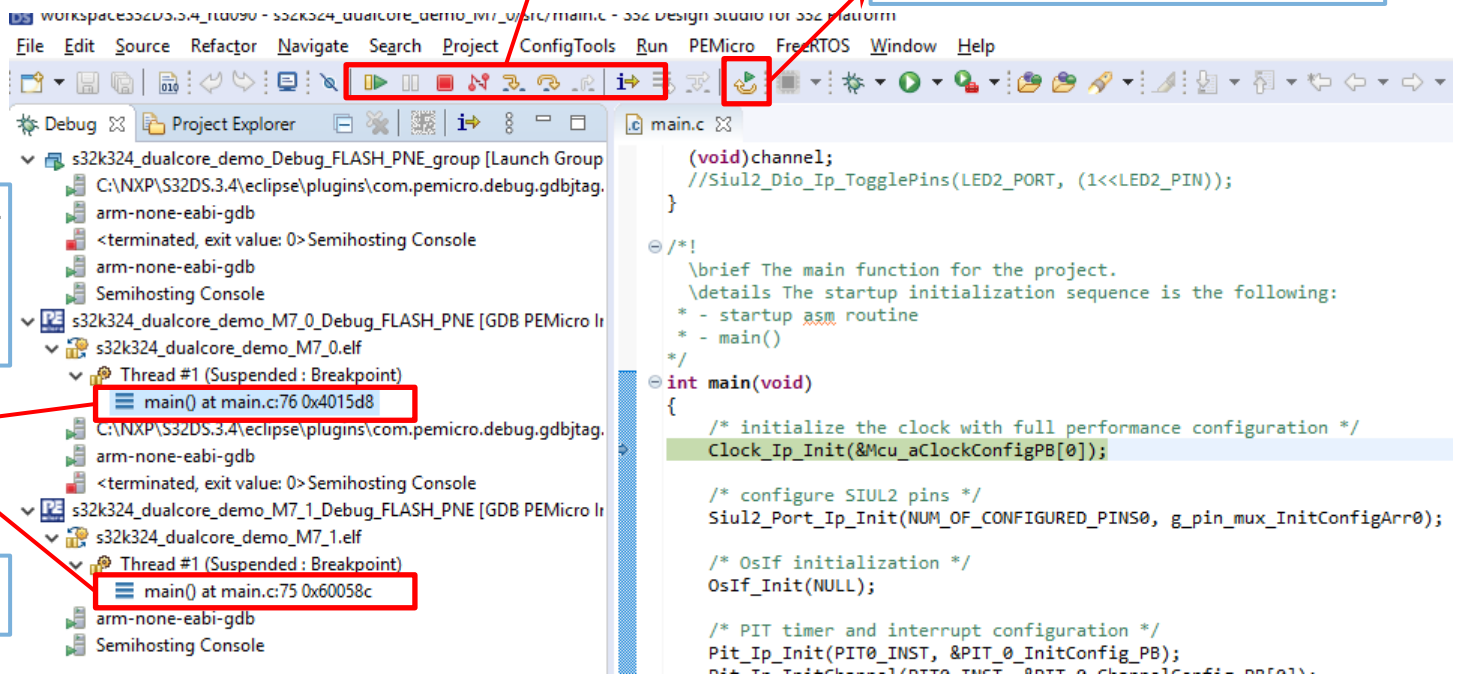
Must select a Launch Group to start the dual-core download and debug.



Debug S32K324 Dual-Core project in S32DS with PE Multilink

Run Break(Pause) Terminate(Stop debugging) Disconnect Step into, Step over, Step return, Single instruction step

Restart (can be used as reset and run)



Must select one core to debug. The other core is in running status or in pause status depending on the previous debug operation.

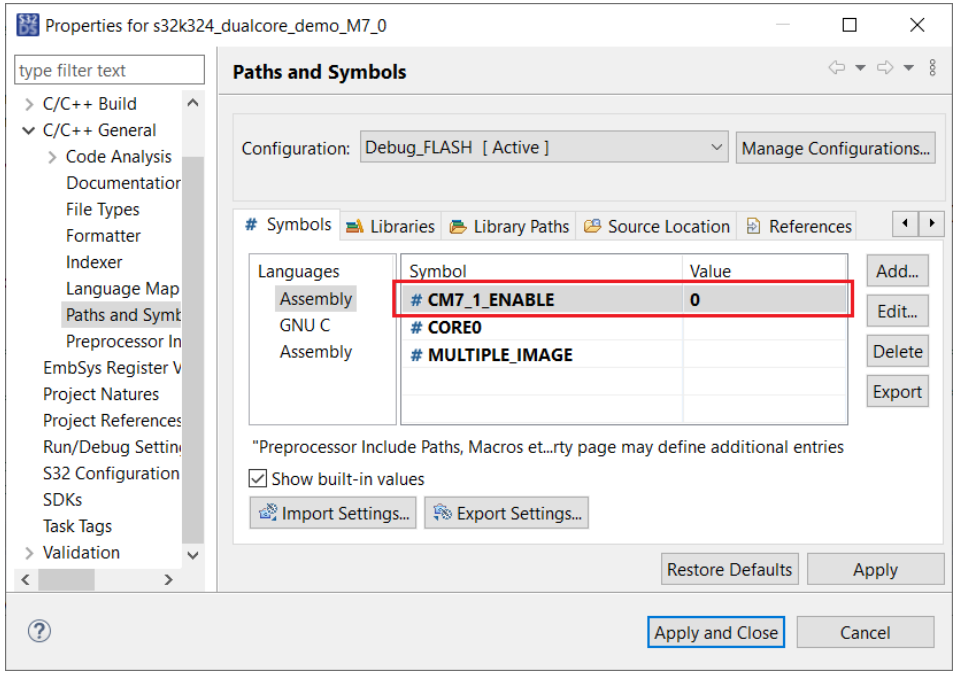
Click to debug core0

Click to debug core1

Both cores are enabled in boot configuration.

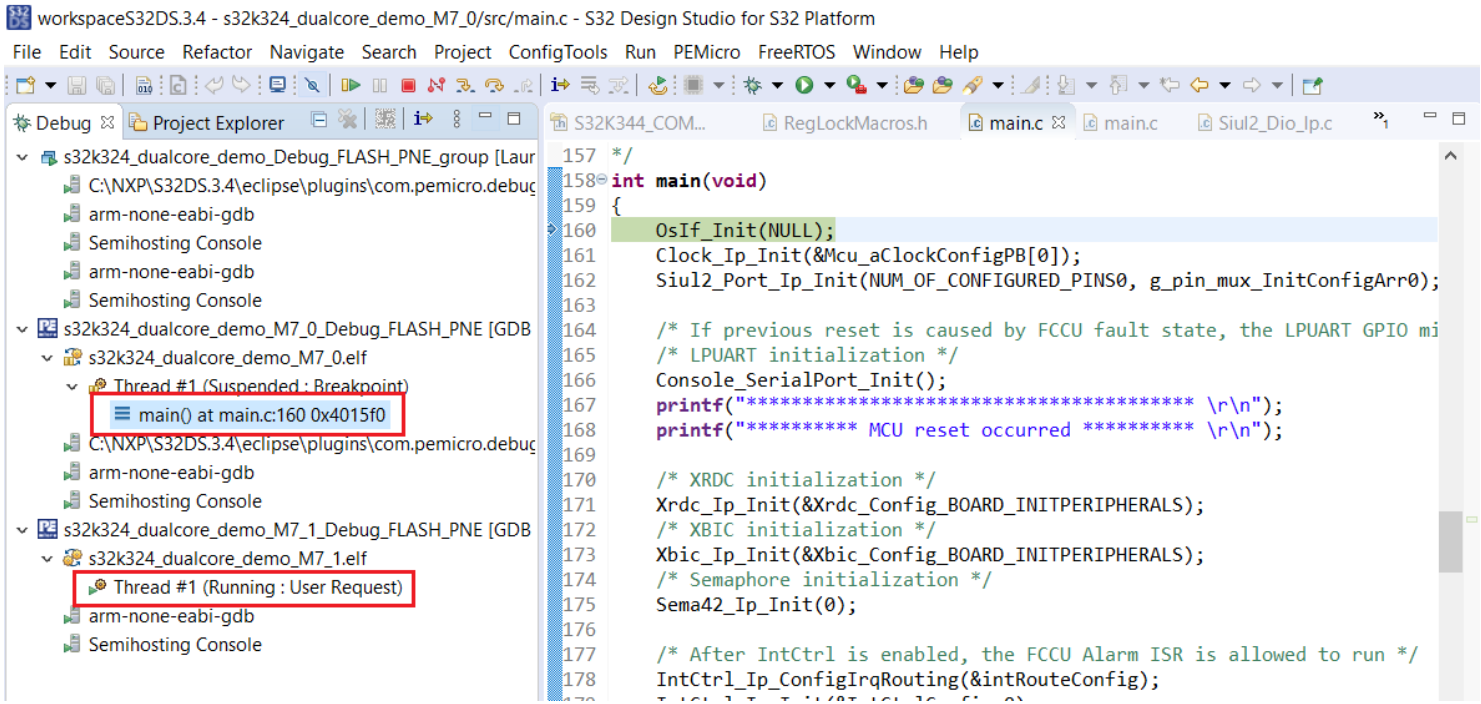
Debug S32K324 Project when “CM7_1_ENALBE=0”

- Assumption:
  - CM7_1 is NOT enabled during boot. Debugger cannot work before it is launched. CM7_1 is started in CM7_0 application code.
- Use the same Debug Configuration as debugging “CM7_1_ENABLE=1”.
- Procedure:
  - Download CM7_0 elf and CM7_1 elf into the flash with Group Launch



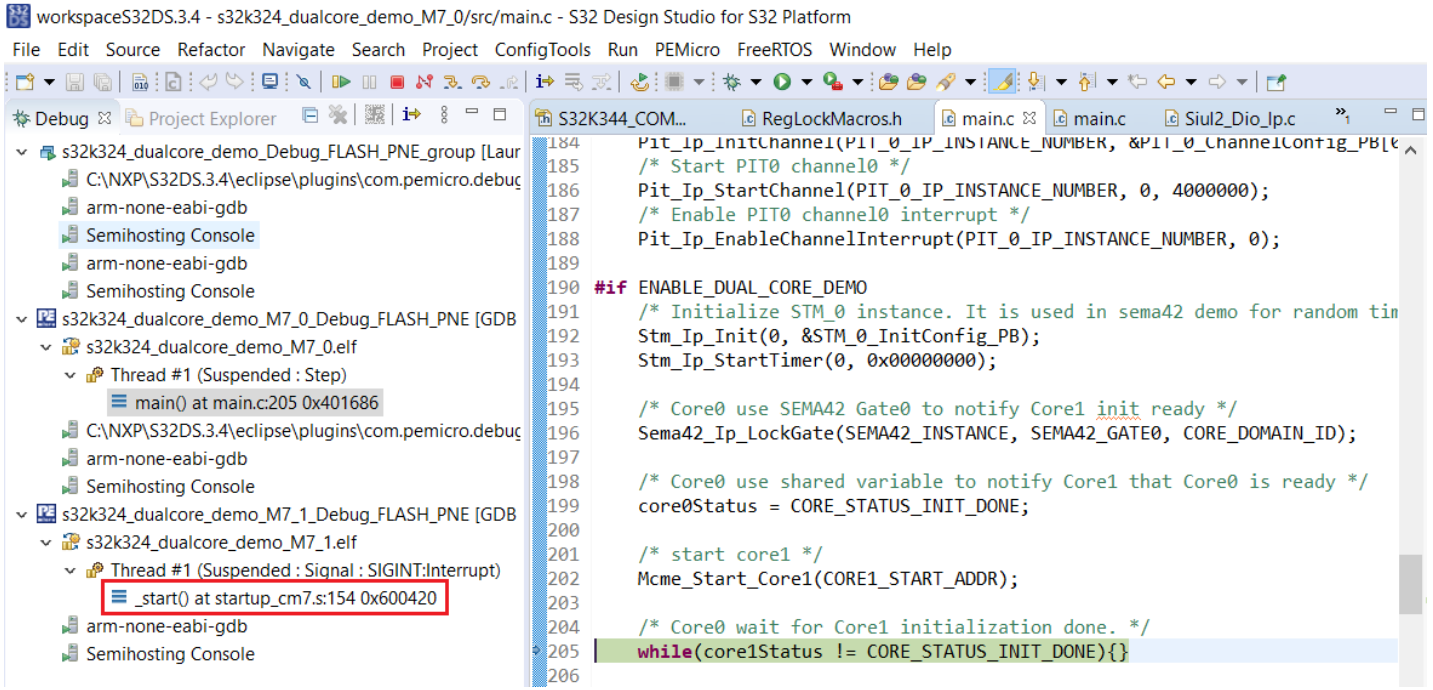
Debug S32K324 Dual-Core project when CM7_1_ENALBE=0

Core1 is not started at this moment, you can't debug Core1.



Debug S32K324 Dual-Core project when CM7_1_ENALBE=0

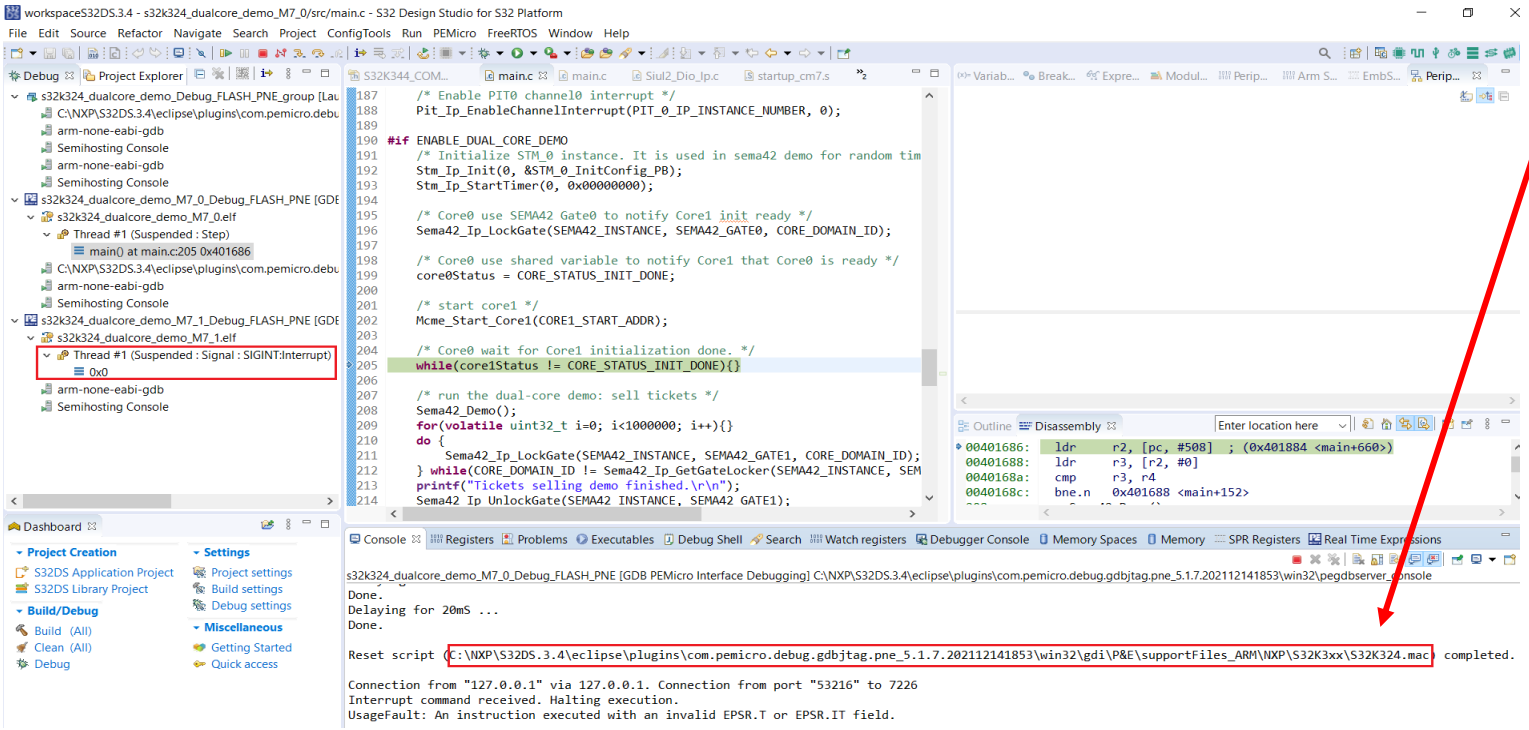
Debug Core0 step by step, after calling Mcme_Start_Core1 to start Core1, you will find the start address of Core1 could be showed at left side, then you could debug Core1 now.



Debug S32K324 Dual-Core project when CM7_1_ENALBE=0

If the start address is still 0 after started Core1 in Core0 project, please check if there is similar log in Console window.

Open this folder, delete / rename the file ‘S32K324.mac’ to another name. Then debug again the dual-core project. Issue should be disappeared. There is no side effect to delete / rename this file ‘S32K324.mac’.



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