

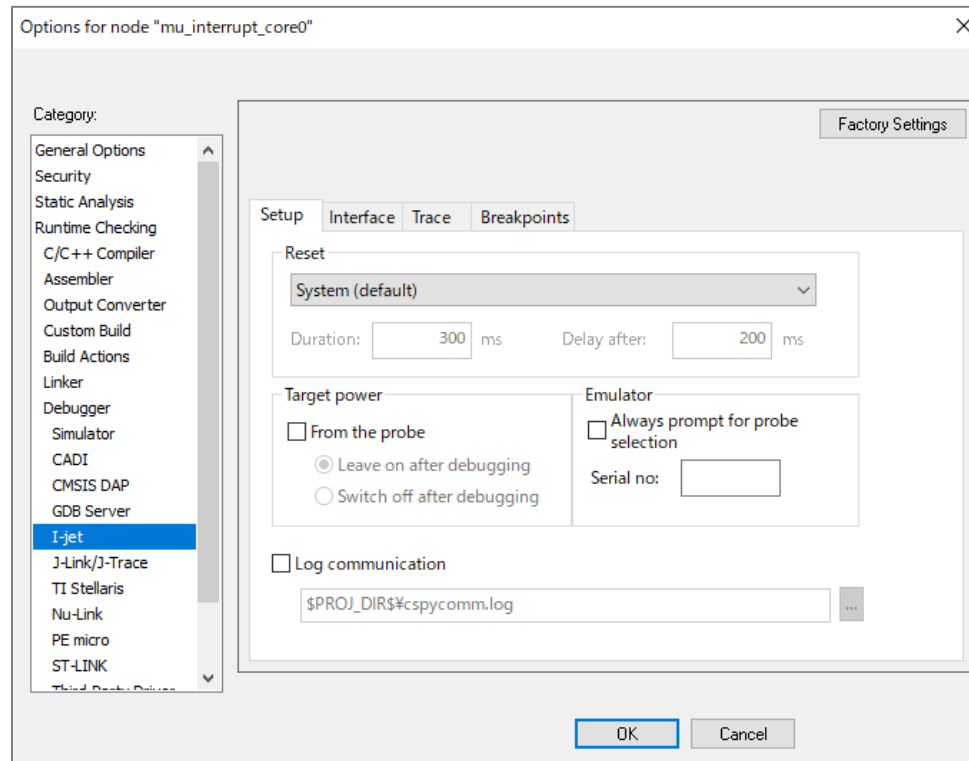


Report for i.MxRT.

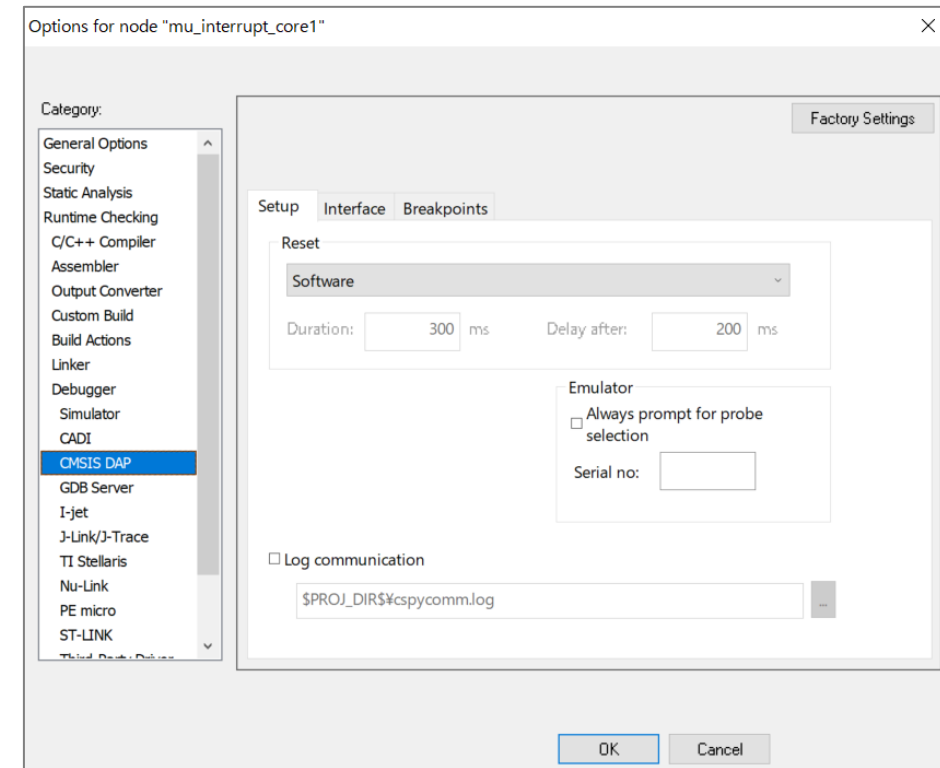
Change jumper setting from 1-2 to 5-6 on J38



Using CMSIS-DAP (default reset case)



Core0(m7)



Core1(m4)

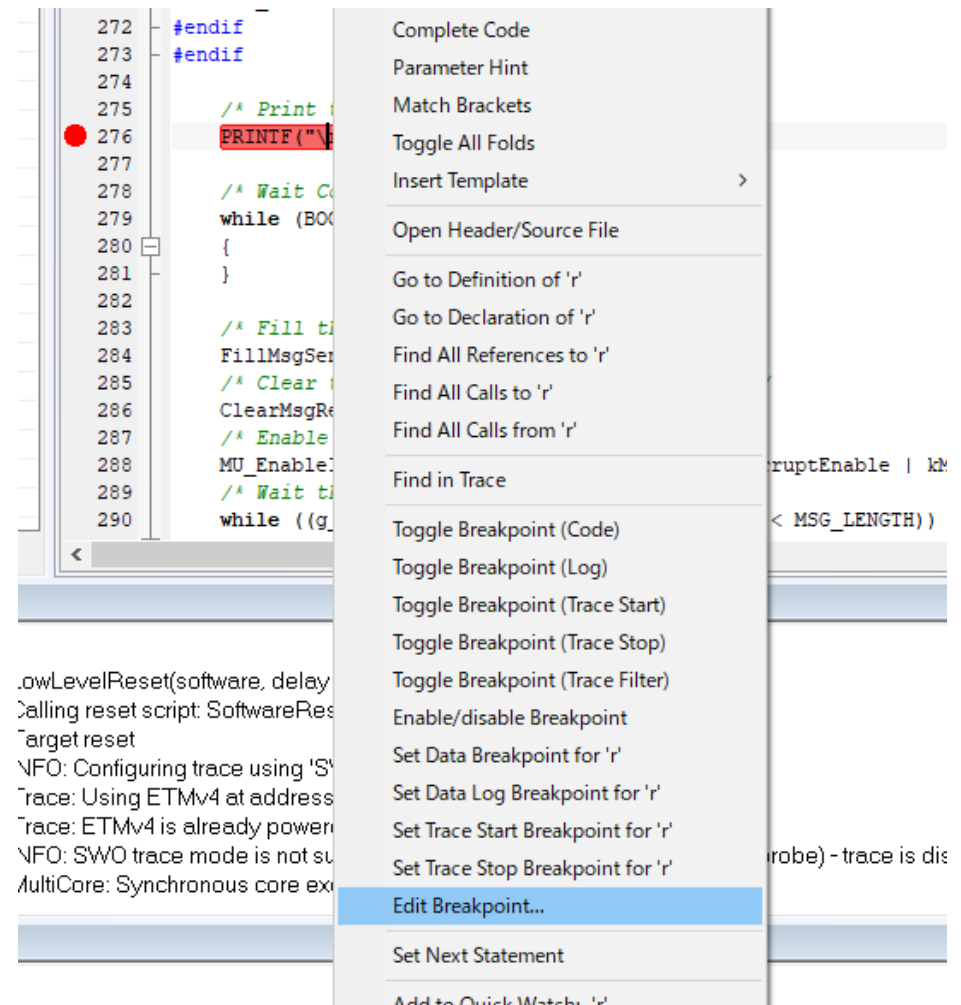
Using CMSIS-DAP

1. Configure breakpoint at previous place of “Wait Core 1 is Boot Up” in core0(M7).
2. Set “run macro for M4” in in breakpoint display.
3. Go M7
4. Stop breakpoint
 - * Seeing this breakpoint, start M4 automatically
5. Go M7

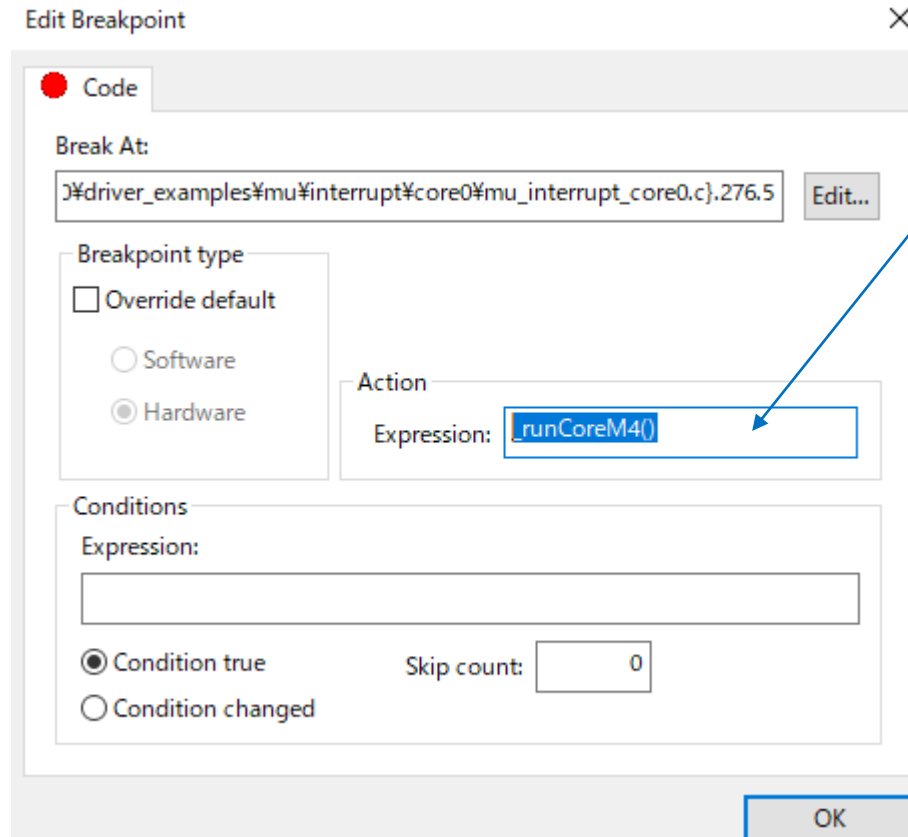
Breakpoint at PRINTF

```
267 /* Boot core 1. */
268 #if BOOT_CORE1_BY_MU
269     MU_BootCoreB(APP_MU, APP_CORE1_BOOT_MODE);
270 #else
271     APP_BootCore1();
272 #endif
273 #endif
274
275 /* Print the initial banner */
276 PRINTF("\r\nMU example interrupt!\r\n");
277
278 /* Wait Core 1 is Boot Up */
279 while (BOOT_FLAG != MU_GetFlags(APP_MU))
280 {
281 }
282
283 /* Fill the msgSend array before send */
```

Set breakpoint at core0(M7 side)

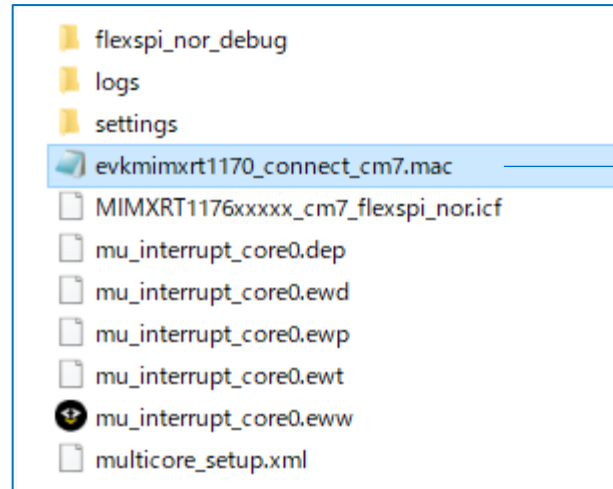


Configure __runCoreM4 in breakpoint display on M7

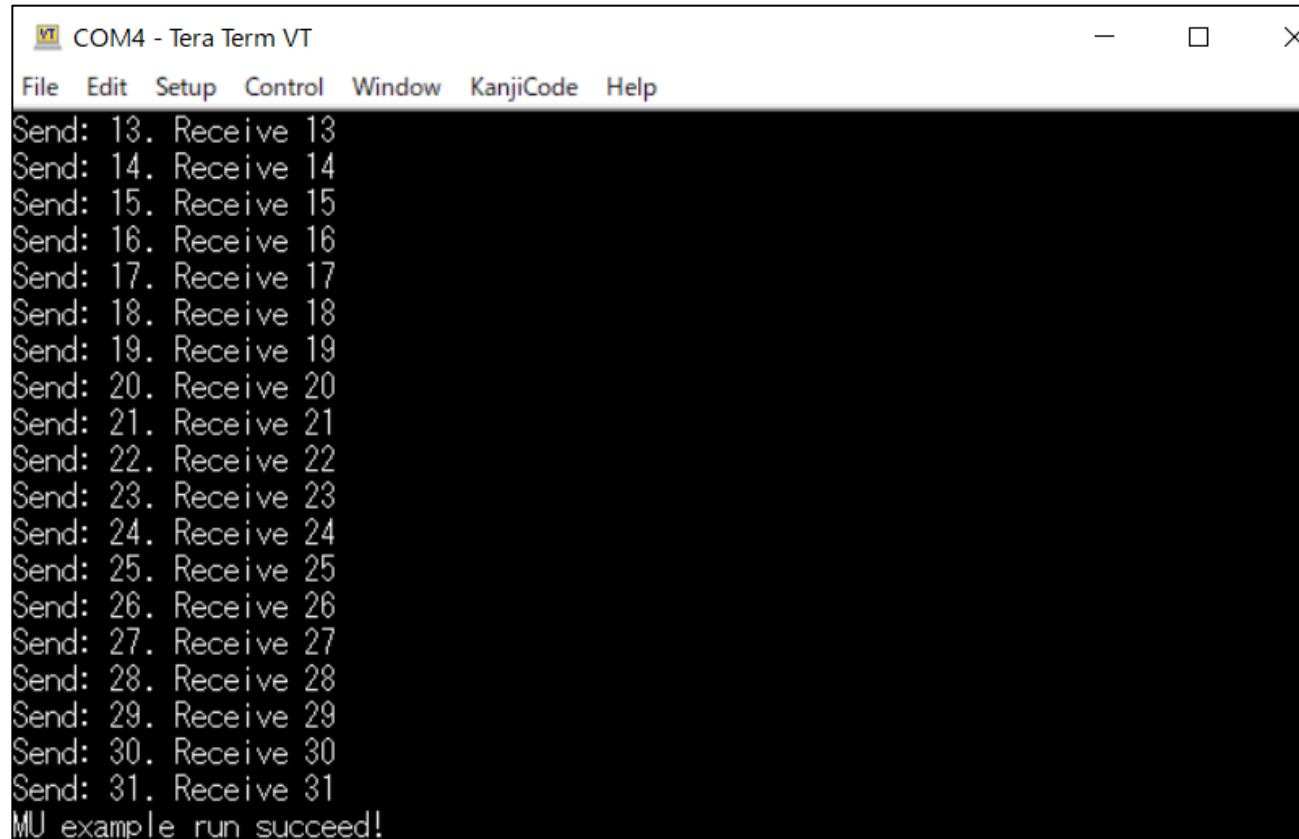


```
__runCoreM4 ()  
{  
    __writeMemory32(0xA05F0001,0xE000EDF0,"AP1_Memory");  
    return 0;  
}
```

Additional code



```
__runCoreM4()  
{  
    __writeMemory32(0xA05F0001,0xE000EDF0,"AP1_Memory");  
    return 0;  
}
```

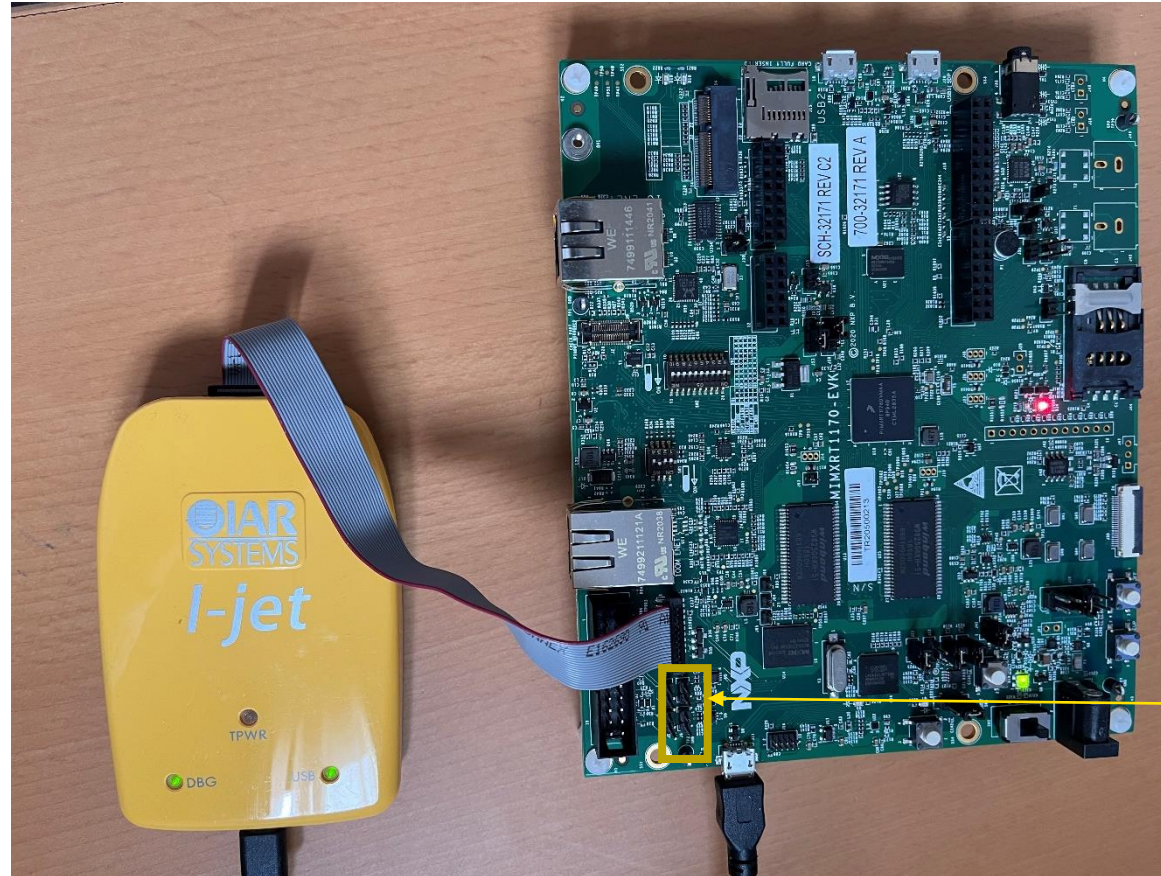


The screenshot shows a Tera Term window titled "COM4 - Tera Term VT". The menu bar includes "File", "Edit", "Setup", "Control", "Window", "KanjiCode", and "Help". The main text area displays a list of operations from 13 to 31, each consisting of a "Send" and a "Receive" action with the same numerical value. At the bottom, a message states "MU example run succeed!".

```
Send: 13. Receive 13
Send: 14. Receive 14
Send: 15. Receive 15
Send: 16. Receive 16
Send: 17. Receive 17
Send: 18. Receive 18
Send: 19. Receive 19
Send: 20. Receive 20
Send: 21. Receive 21
Send: 22. Receive 22
Send: 23. Receive 23
Send: 24. Receive 24
Send: 25. Receive 25
Send: 26. Receive 26
Send: 27. Receive 27
Send: 28. Receive 28
Send: 29. Receive 29
Send: 30. Receive 30
Send: 31. Receive 31
MU example run succeed!
```

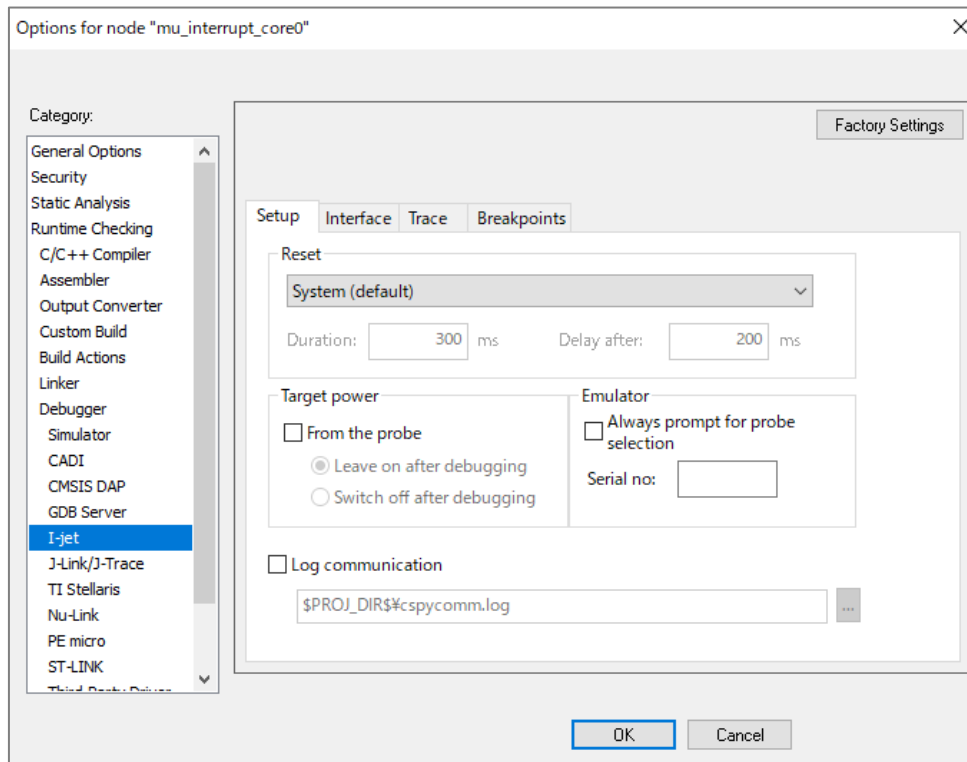
We could see expected behavior.

Before using i-jet

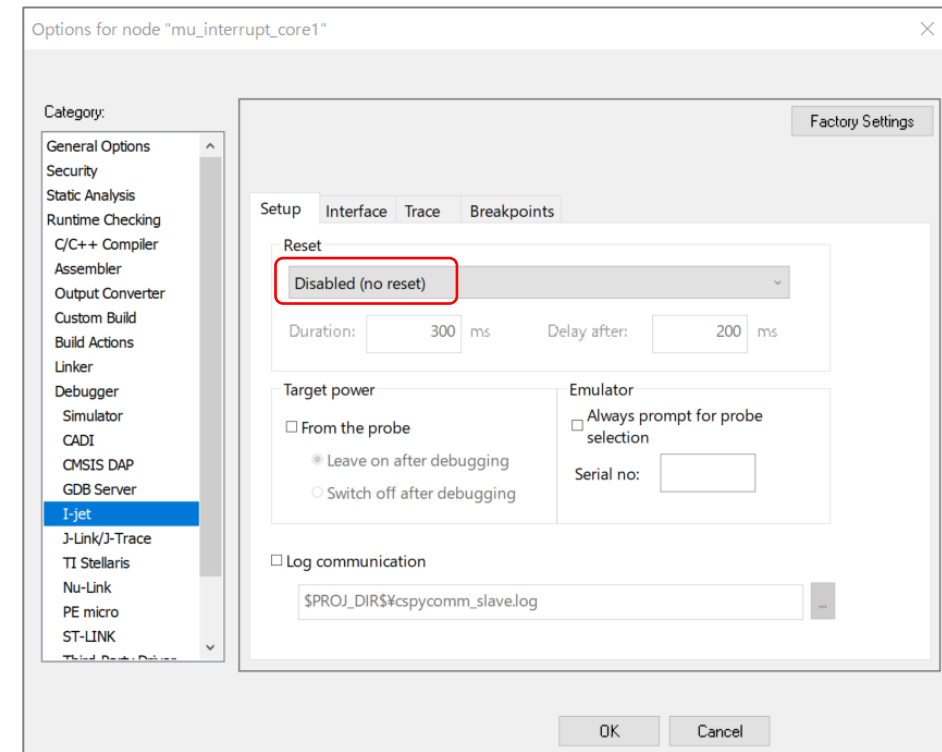


Remove
jumper for
J5, 6, 7,8

Using i-jet (default case)



Core0(m7)

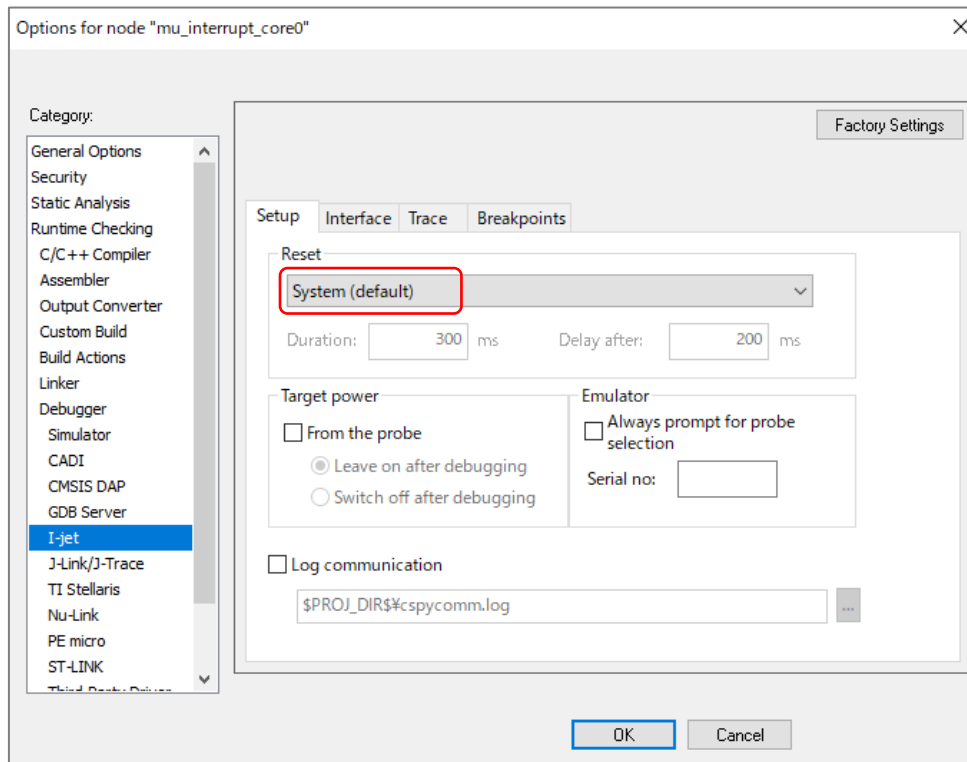


Core1(m4)

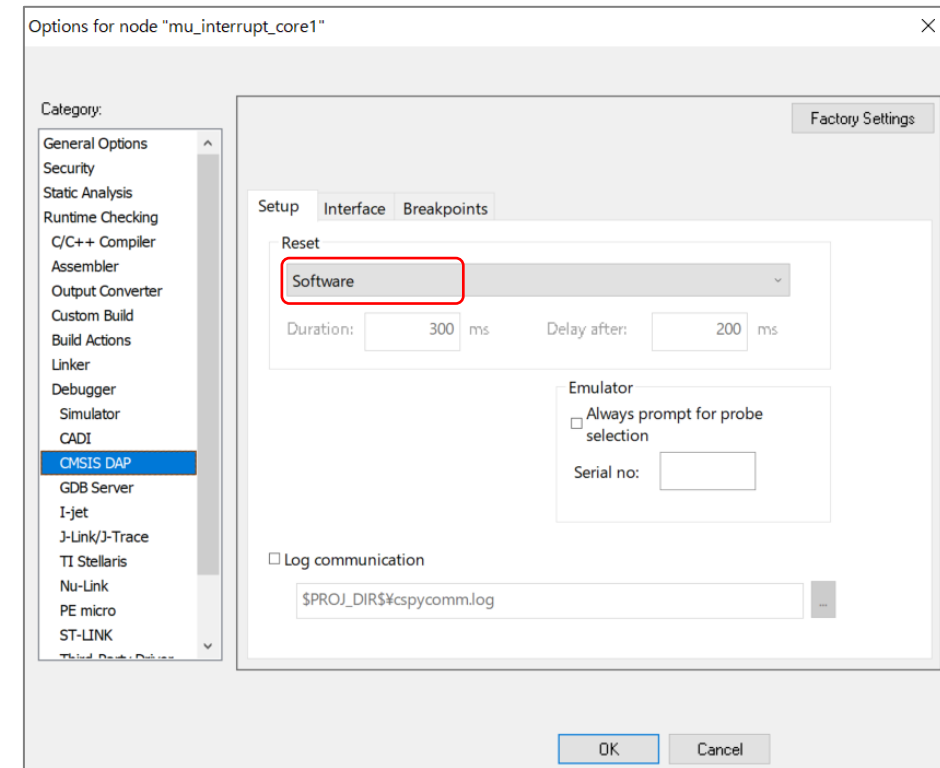
```
COM4 - Tera Term VT
File Edit Setup Control Window KanjiCode Help
Send: 22. Receive 22
Send: 23. Receive 23
Send: 24. Receive 24
Send: 25. Receive 25
Send: 26. Receive 26
Send: 27. Receive 27
Send: 28. Receive 28
Send: 29. Receive 29
Send: 30. Receive 30
Send: 31. Receive 31
MU example run succeed!Copy Secondary core image to address: 0x20200000, size
453
MU example interrupt!
Copy Secondary core image to address: 0x20200000, size: 5453
MU example interrupt!
Send: 0. Receive 0
Send: 1. Receive 0
MU example run Error!
```

If core1(m4) is adopted “disabled” for reset type of m4,
we could see some errors yet.

Using i-jet (optimized case-1)



Core0(m7)



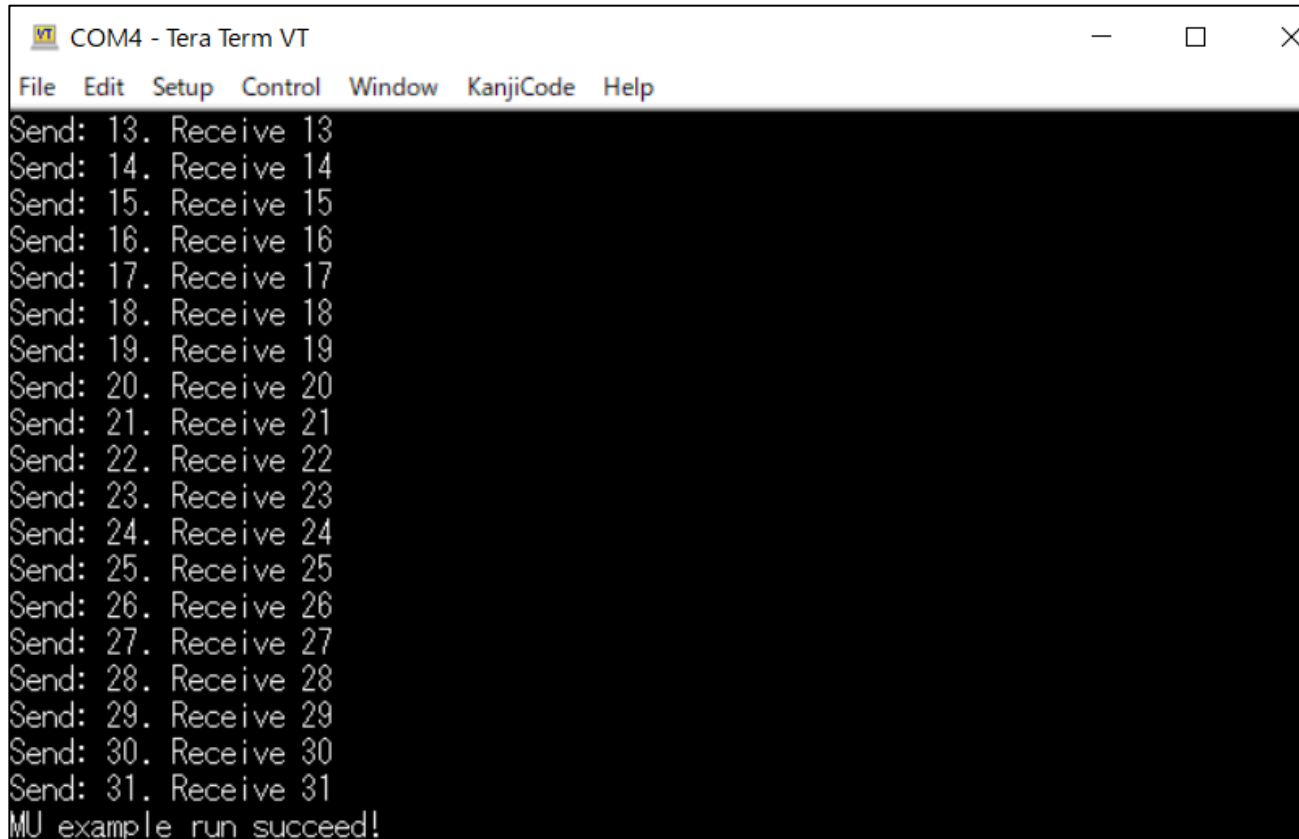
Core1(m4)

EWARM8.50.9 case

Debug display for Core1(m4)

```
Thu Apr 22, 2021 14:57:44: MultiCore: Synchronous core execution DISABLED.  
Thu Apr 22, 2021 14:57:44: MultiCore: Synchronous core execution DISABLED.  
Thu Apr 22, 2021 14:57:44: SWD clock detected: 12MHz  
Thu Apr 22, 2021 14:57:44: Notification to core-connect hookup.  
Thu Apr 22, 2021 14:57:44: Connected DAP v2 on SWD. Detected DP ID=0x6ba02477.  
Thu Apr 22, 2021 14:57:44: DMAC: Enable M4 core!  
Thu Apr 22, 2021 14:57:44: Connecting to TAP#0 DAP AHB-AP-CM port 0x1 (IDR=0x24770011).  
Thu Apr 22, 2021 14:57:44: Recognized CPUID=0x410fc241 Cortex-M4 r0p1 arch ARMv7-M  
Thu Apr 22, 2021 14:57:44: Debug resources: 6 instruction comparators, 4 data watchpoint
```

After changing reset type from “disabled” to “software”



VT COM4 - Tera Term VT

File Edit Setup Control Window KanjiCode Help

```
Send: 13. Receive 13  
Send: 14. Receive 14  
Send: 15. Receive 15  
Send: 16. Receive 16  
Send: 17. Receive 17  
Send: 18. Receive 18  
Send: 19. Receive 19  
Send: 20. Receive 20  
Send: 21. Receive 21  
Send: 22. Receive 22  
Send: 23. Receive 23  
Send: 24. Receive 24  
Send: 25. Receive 25  
Send: 26. Receive 26  
Send: 27. Receive 27  
Send: 28. Receive 28  
Send: 29. Receive 29  
Send: 30. Receive 30  
Send: 31. Receive 31  
MU example run succeed!
```

If core1(m4) is adopted “software” for reset type, we could see expected behavior.

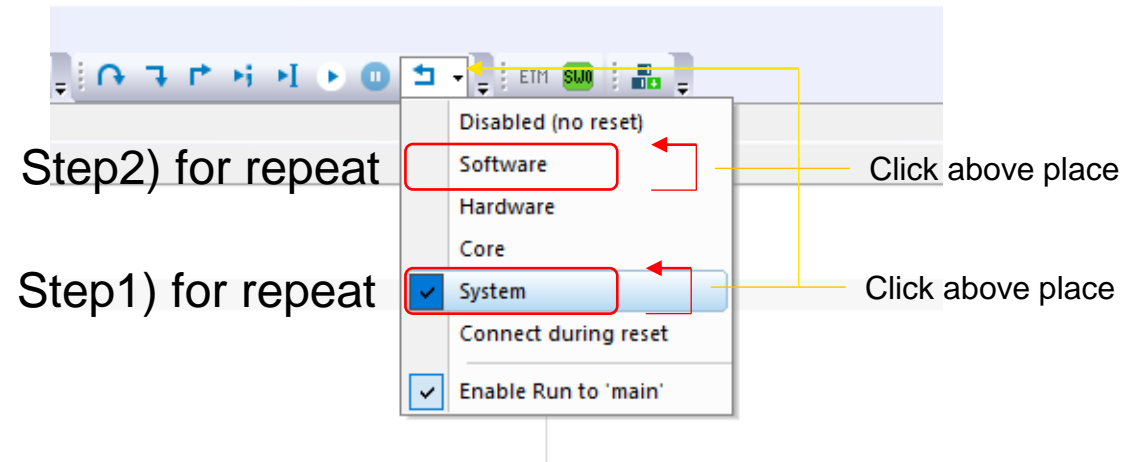
Caution to repeat this demo

EWARM8.50.9 case

1. Configure breakpoint at previous place of “Wait Core 1 is Boot Up” in core0(M7).
2. Set “run macro for M4” in in breakpoint display.
3. Go M7
4. Stop breakpoint
 - * Seeing this breakpoint, start M4 automatically
5. Go M7

When repeating this demo,

1. reset with “**System**” on M7
2. reset with “**Software**” on M7
3. Go M7



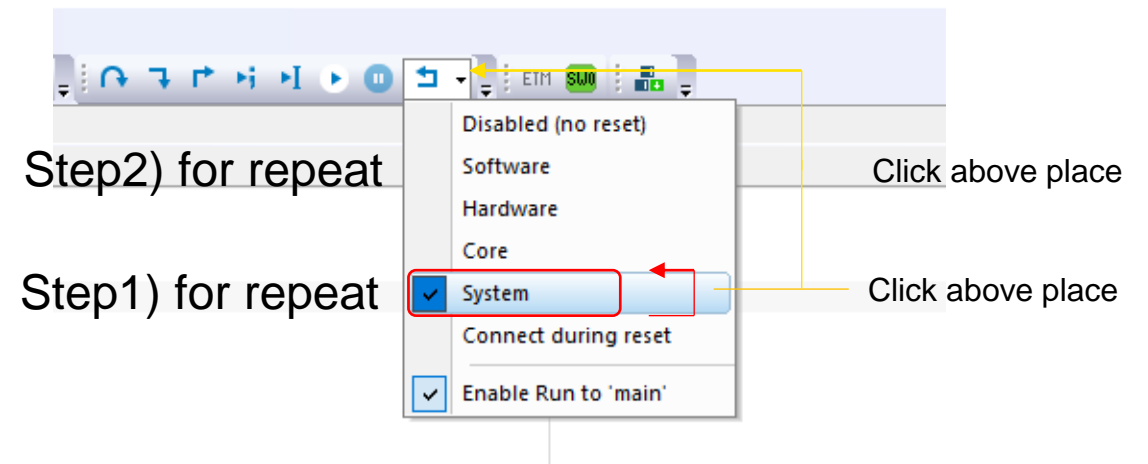
Caution to repeat this demo

EWARM9.10.X case

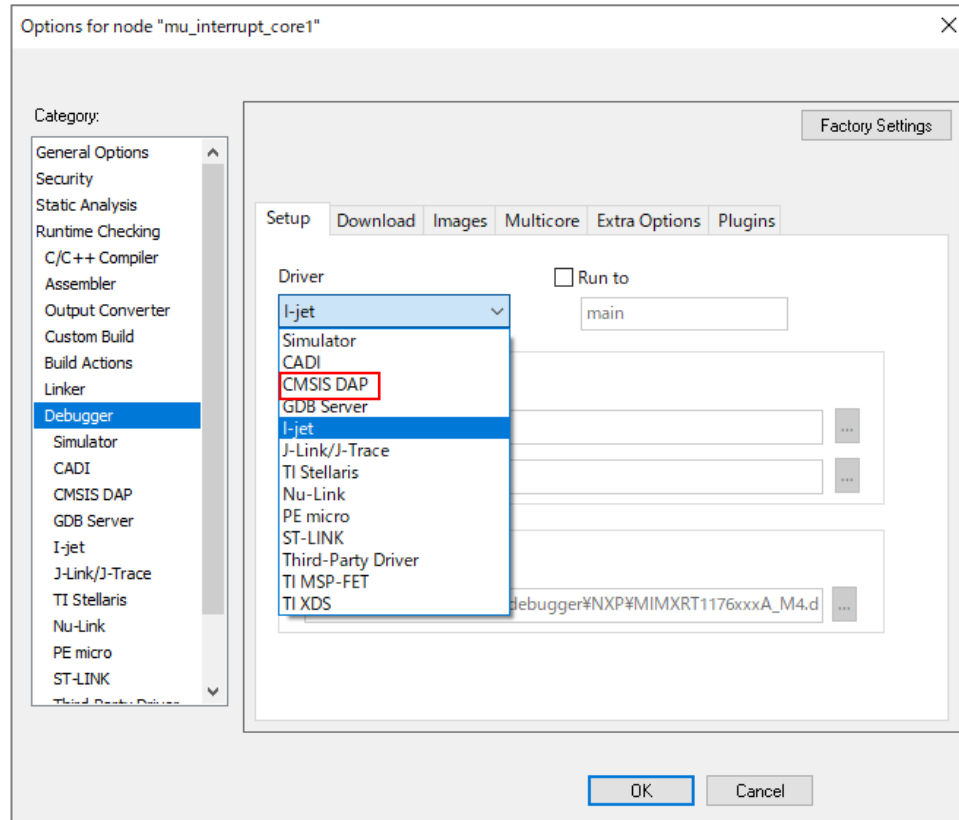
1. Configure breakpoint at previous place of “Wait Core 1 is Boot Up” in core0(M7).
2. Set “run macro for M4” in in breakpoint display.
3. Go M7
4. Stop breakpoint
 - * Seeing this breakpoint, start M4 automatically
5. Go M7

When repeating this demo,

1. reset with “**System**” on M7
2. Go M7



Appendix



After changing from CMSIS-DAP to i-jet, re-build m4 and m7 again just in case.

Thank you