1. Open MCUXpresso IDE.
2. Import any example of the SDK. In this guide, I imported the iled_blinky example. In the end, I will explain why you need this project.
3. Go to your RT1064-EVK and locate SW7.

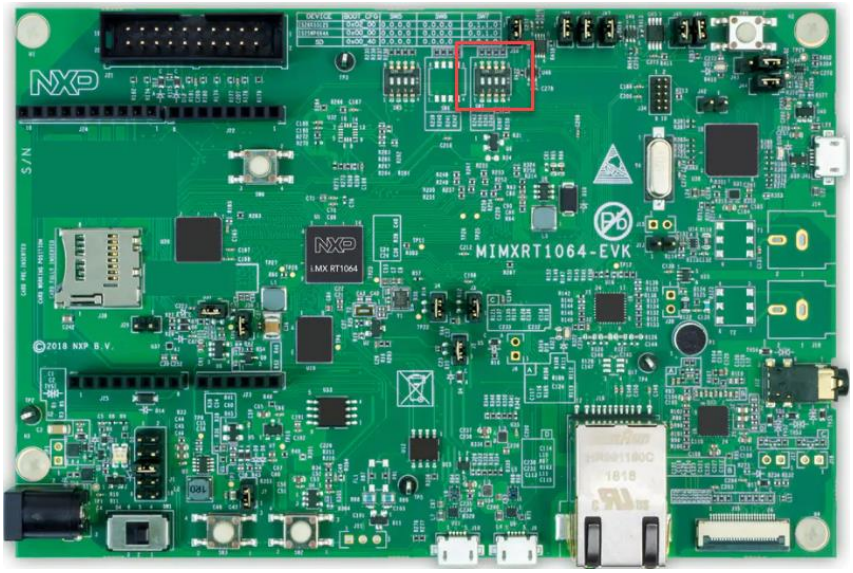

Figure 1. RT1064-EVK.

4. Once you located SW7, you need to change the switches to enter Serial Downloader mode. To do this, turn **ON SW7-4** and turn **OFF all the other switches in SW7**.
5. At this point, you need to do a power-cycle to your board (disconnect and connect the power), so the changes in SW7 take effect.
6. Launch the debug session of the project while in serial downloader.
7. When the debug session is launched, you won't see that the program stops at the main as it normally does, your debug session will look like the image below. This is because you are in serial downloader mode.

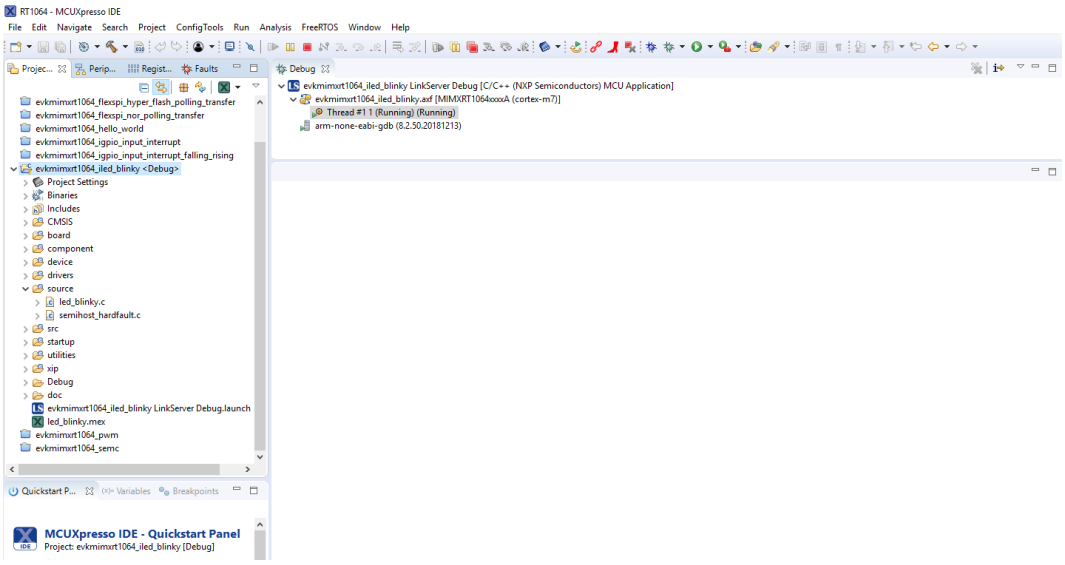

Figure 2. Debug session while in serial downloader.

8. Stop this debug session.
9. Go to your board and change the SW7 back to the way it was. SW7-1 OFF, SW7-2 OFF, SW7-3 ON and SW7-4 OFF.
10. Do a power cycle to your evaluation board.
11. That's it! At this point, you should be able to enter the debug sessions without any problems.

Let me explain a little more about this solution. Normally when the debugger cannot take control over the core is because your board ended up in an unknown state, this can happen because of multiple reasons, the most commons are: your code is trying to access to memory that doesn't exist, your memory is corrupted, misconfiguration of the clocks, etc. When you put the core in serial downloader mode, what you are doing is putting the core in a known state, this way the debugger will be able to take control of the core.

The reason why you need to import a fresh project from the SDK is that we are sure that this project works perfectly and has all the right configurations in the clocks and all the other peripherals. Once you flash this project in serial downloader mode, your board will be in a known state, so the debugger can take control over the core without problems once you boot from the flash again.