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openOCD not connecting to target when Ralink_MT7650_Bluetooth-01 device is installed

Ciprian Salageanu <cipriansalageanu@gmail.com> Wed, Jul 15, 2015 at 11:48 PM
To: openocd-devel@lists.sourceforge.net

Hello,

On my system it is not possible to connect to target board unless I completely remove 'Ralink_MT7650_Bluetooth-01' from Device Manager.

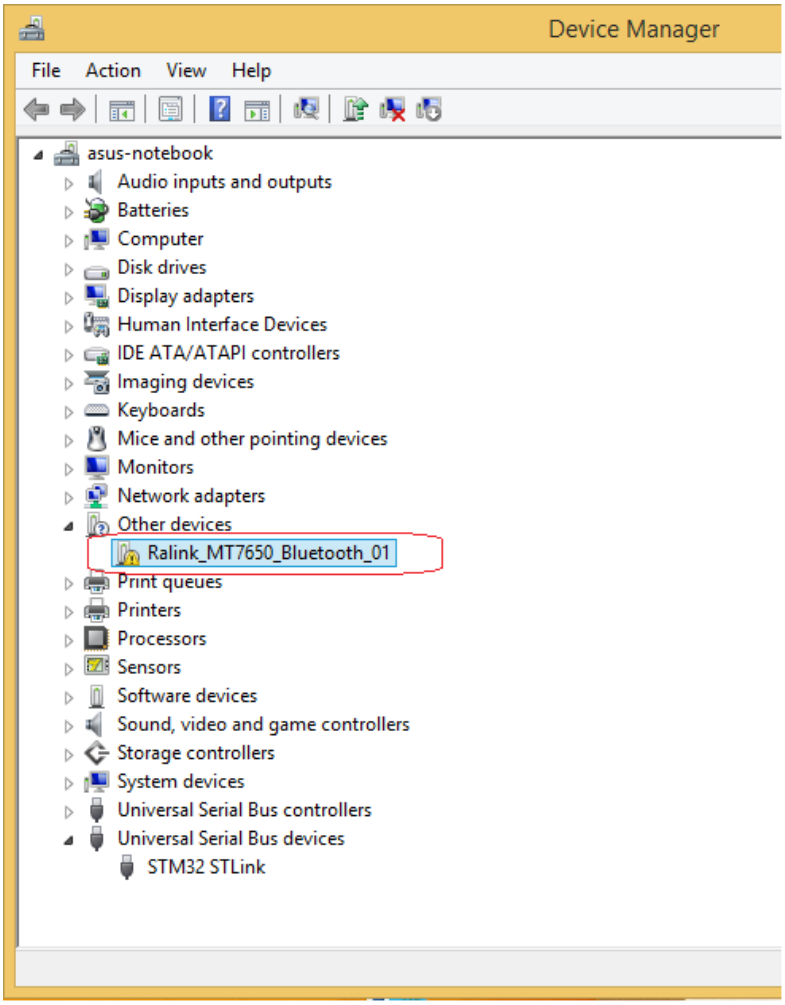
Here is my system:
Asus X-200LA-CT002H (notebook), OS: Windows 8.1 64 bits

Target board:
STM32F429I-DISC/ 02-0 (it is a ST Discovery board)
Also the same behavior with boards: NUCLEO-L152RE and STM32F3Discovery (both ST)

The command line are:

c:\openocd-0.9.0_fc\bin>openocd.exe -f c:\openocd-0.9.0_fc\scripts\board\stm32f429discovery.cfg -d 3 -l d:\openocd_stm32f429_log.txt
(the log file is attaced)

If the Ralink_MT7650_Bluetooth-01 is present in Device Manager function stlink_usb_open() fails (see attached log - openocd_stm32f429_log.txt).



If I remove the Ralink_MT7650_Bluetooth-01 from Device Manager (right click and then Unistal) I can connect to target board - see below and also the log file openocd_stm32f429_log_ok.txt

c:\openocd-0.9.0_fc\bin>openocd.exe -f c:\openocd-0.9.0_fc\scripts\board\stm32f429discovery.cfg

Open On-Chip Debugger 0.9.0 (2015-05-19-12:06)
Licensed under GNU GPL v2
For bug reports, read
http://openocd.org/doc/doxygen/bugs.html
Info : The selected transport took over low-level target control. The results might differ compared to plain JTAG/SWD
adapter speed: 2000 kHz
adapter_nsrst_delay: 100
none separate
srst_only separate srst_nogate srst_open_drain connect_deassert_srst
Info : Unable to match requested speed 2000 kHz, using 1800 kHz
Info : Unable to match requested speed 2000 kHz, using 1800 kHz
Info : clock speed 1800 kHz
Info : STLINK v2 JTAG v17 API v2 SWIM v0 VID 0x0483 PID 0x3748
Info : using stlink api v2
Info : Target voltage: 2.864877
Info : stm32f4x.cpu: hardware has 6 breakpoints, 4 watchpoints

This problem appears ONLY on Asus X-200LA machine. I have another laptop also with Windows 8.1 and there I have no problem to connect to target using above command.
Also I have a Ubuntu virtual machine on this computer. It is possible to connect to target from Ubuntu ONLY IF 'Ralink_MT7650_Bluetooth-01' is connected to Windows and not to Ubuntu.

Also it is not sufficient only to Disable Ralink device. OpenOCD will work only if Ralink is not present on Device Manager.

The workaround is to remove Ralink from Device Manager after boot or if this device appear after each USB enumeration. This is not very annoying but maybe someone has or will have similar problem.

I suppose chances that someone to reproduce this behavior are very low (except has the same system as me or maybe Ralink BT hardware), so I could try to compile and debug OpenOCD on my machine.
I have MSYS2 Shell installed on my system and pkg-config-lite-0.28-1. I need to know how to compile from MSYS2 repositories and tools to use for debug.

For above tests I have used latest binaries from Freddie Chopin site.

Thank you,
Ciprian

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2 attachments

openocd_stm32f429_log.txt
22K

openocd_stm32f429_log_ok.txt
30K