

1 Enabling Debug of a censored Device

Figure 1. Enabling JTAG/Nexus port access on a censored device

Figure 1 shows how JTAG/Nexus client (debugger) can enable debug. With using of most common debugger user can achieve this several ways. This document describes 3 options below.

1.1 PPCNEXUS (PeMicro)

Enter private flash password in advance menu of debugger option.

PEMICRO Connection Manager	
You have selected to display this dialog on startup. Specify communications	
parameters and click OK.	
Connection port and Interface Type	
Interface: USB Multilink, Embedded Multilink, or Embedded OSJTag	
Refresh List	
Port: USB1 : USB-ML-PPCNEXUS Rev A (PE8012361)	
Interface Detected : Firmware Version :	
Target CPU Information	
CPU: PowerPC Processor - Autodetect	\mathbf{U}
BDM Communication Speed	
PC Parallel Port wait states : IO_DELAY_CNT = 0	
BDM Debug Shift Freg : BDM_SPEED = 9 - BDM CLOCK FREQ = 100000 Hz	
MCU Internal Bus Frequency (For programming)	
Auto-Detect	
C MCU Internal Bus frequency (FREQ) in Hz = ODecimal)	
Reset Options	
Delay after Reset and before communicating to target for0 milliseconds (decimal).	
Connect (Reset) <u>H</u> otsync <u>A</u> bort	
Show this dialog before attempting to contact target (Otherwise only display on Error)	

🔽 PowerPC Debug Options	
Debug Options	
Always Reset device on startup : YES 💌	
Continually POLL device status : YES 💌	
Show all assembly states while executing a source leve	el step : NO 🛛 💌
Set PC to Code Start when loading Elf/Dwarf Object :	YES 💌
Disable watchdog (if PowerPC derivative recognized) :	NO 🔻
Use 64-bit SPE writes during data block write to target :	YES 💌
Freeze timers on Debug Event : NO 🗨	
Synchronize low power entry with debugger : YES	•
Uncensor Options	
Uncensor device on reset : YES 💽	2
Password (hex) : FEEDFACECAFEBEEF	3
✓ <u>O</u> K X Cancel	Default Settings

Figure 2. Enabling debug in PeMicro PPCNEXUS - enter private flash password

(4)

1.2 CodeWarrior 10.6

Enter private flash password just before debug session is started.

Password	Required		×		
Device may be censored. Please enter password (in hex) to uncensor:					
FEED	FACE	CAFE	BEEF		
	ОК	Cancel			

Figure 3. Enabling debug in CodeWarrior 10.6

1.3 TRACE32 (Lauterbach)

Enter private flash password to .cmm batchfile

E [B::wr.we	PLIST]	- • ×
Step	第 Over) 彩 Continue) 邪 Stop) 第 Enddo) 郷 List) ④ Macros) 图 Edit) ⑧ Breakpoints	
7	SYStem.RESet	*
	SYStem.CPU MPC5674 SYStem.BdmClock 4.MHz	
13 14 15 17 18 19 20 21 22 23	<pre>if POWERNEXUS() (Trace.Method Analyzer Trace.Init iset port mode to MD016 SYStem.Option.NEXUS MD016) else if SIMULATOR() (Trace.Method Analyzer Trace.Init) else (Trace.Method Onchip Trace.Init)</pre>	
		=
37	;Enabling Debug of a Censored Device SYStem.option.keycode 0xFEEDFACECAFEBEEF	
40	;connect and reset processor SYStem.UP	
43	;set up MMU TLBs DO "&path/MPC5674F_mmu_init.cmm"	
46	; <mark>initialize internal SRAM</mark> DO "&path/MPC5674F_sram_init.cmm"	
48	Data.LOAD.ELF "/bin/RAM.elf"	
51 52	:execute until function main GO main WAIT !RUN()	
	;set debug mode to HLL debugging DATA.LIST MODE.HLL	
58	ENDDO	-