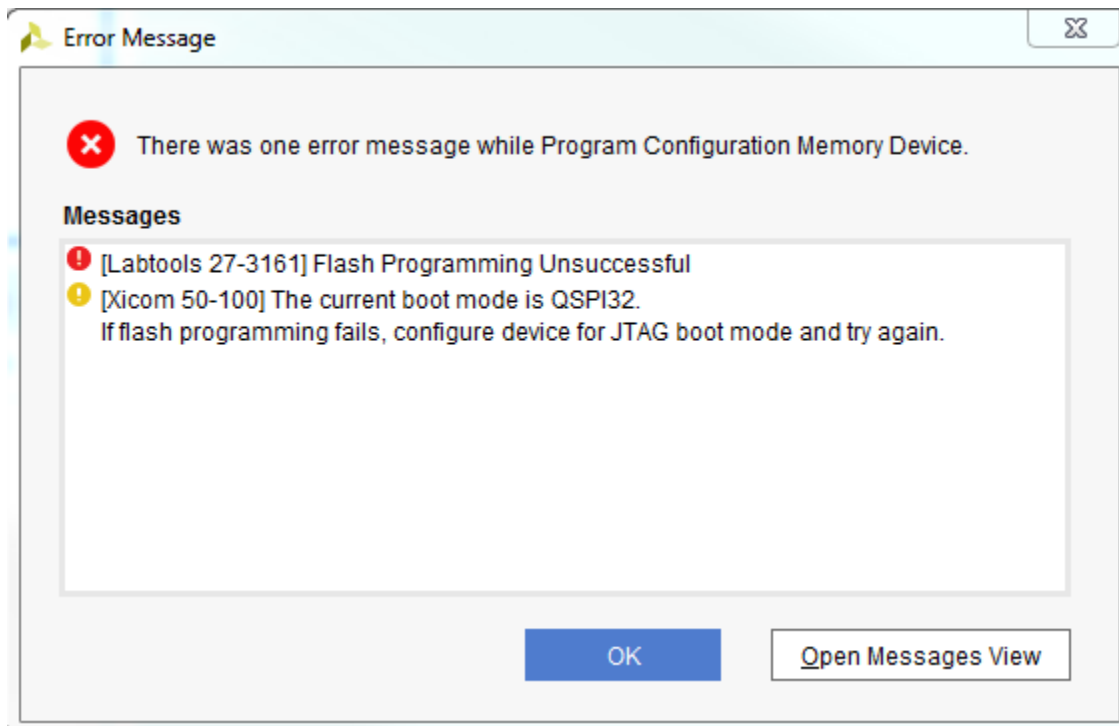


2018.06.21

**FIRST** attempt to program flash. Power is off. Set mode=0x2 (SPI). Power on. ERR\_OUT led is on. ERR\_STATUS and ERR\_DONE are off. Open Vivado HW manager and setup to program flash. Fail, see Tcl console output and error window. No message on serial port COM4.

```
open_hw
connect_hw_server
INFO: [Labtools 27-2285] Connecting to hw_server url TCP:localhost:3121
open_hw_target
INFO: [Labtoolstcl 44-466] Opening hw_target localhost:3121/xilinx_tcf/Digilent/25163300129EA
set_property PROGRAM.FILE {C:/Cristian/CodeLib/Trenz/TE0803/test_board_buid_09/vivado/test_board_buid_09.runs/impl_1/zusys_wrapper.bit} [get_hw_devices xczu4_0]
current_hw_device [get_hw_devices xczu4_0]
refresh_hw_device -update_hw_probes false [lindex [get_hw_devices xczu4_0] 0]
INFO: [Labtools 27-1435] Device xczu4 (JTAG device index = 0) is not programmed (DONE status = 0).
create_hw_cfgmem -hw_device [lindex [get_hw_devices] 0] -mem_dev [lindex [get_cfgmem_parts {mt25qu512-qspi-x8-dual-parallel}] 0]
current_hw_device [get_hw_devices arm_dap_1]
refresh_hw_device -update_hw_probes false [lindex [get_hw_devices arm_dap_1] 0]
current_hw_device [get_hw_devices xczu4_0]
set_property PROGRAM.ADDRESS_RANGE {use_file} [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.FILES [list "C:/Cristian/CodeLib/Trenz/TE0803/TrenzForum/John_hello_te0803/BOOT.bin" ] [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.ZYNQ_FSBL {C:/Cristian/CodeLib/Trenz/TE0803/TrenzForum/John_hello_te0803/zynqmp_fsbl_flash.elf} [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.BLANK_CHECK 0 [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.ERASE 1 [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.CFG_PROGRAM 1 [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.VERIFY 1 [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.CHECKSUM 0 [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
startgroup
program_hw_cfgmem -hw_cfgmem [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
WARNING: [Xicom 50-100] The current boot mode is QSPI32.
If flash programming fails, configure device for JTAG boot mode and try again.
Problem in running uboot
Flash programming initialization failed.
ERROR: [Labtools 27-3161] Flash Programming Unsuccessful
program_hw_cfgmem: Time (s): cpu = 00:00:00 ; elapsed = 00:00:07 . Memory (MB): peak = 1706.363 ; gain = 0.000
ERROR: [Common 17-39] 'program_hw_cfgmem' failed due to earlier errors.
ERROR: [Labtoolstcl 44-513] HW Target shutdown. Closing target: localhost:3121/xilinx_tcf/Digilent/25163300129EA
close_hw
```

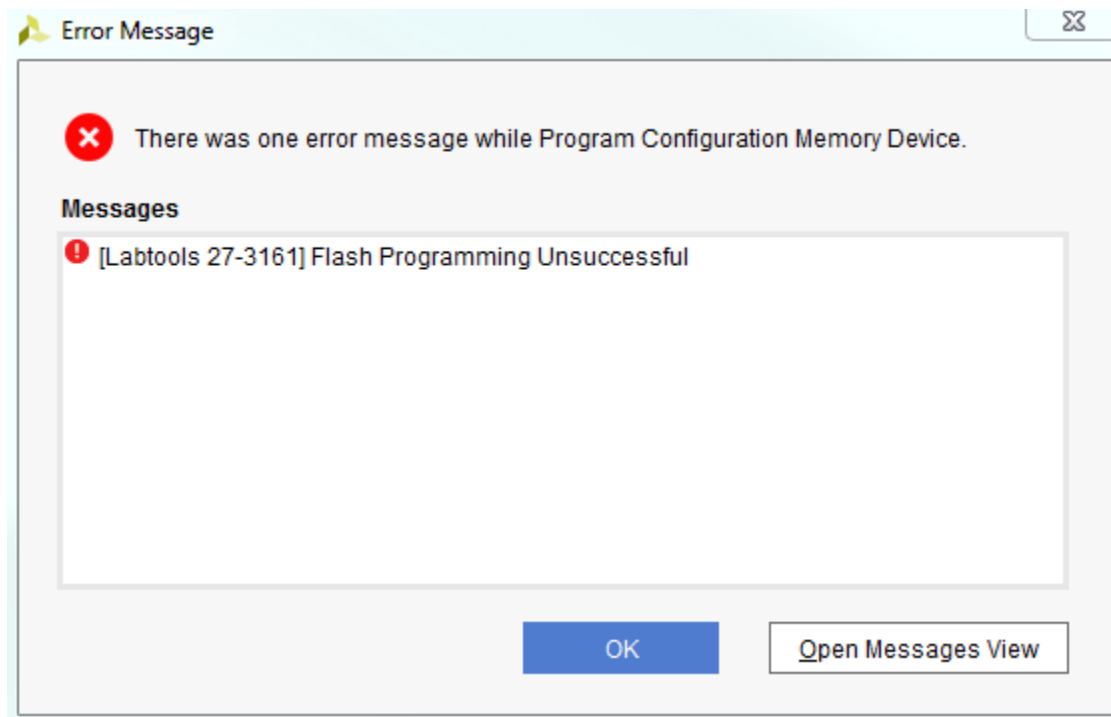


**SECOND** attempt to program flash. Power is off. Set mode=0x0 (JTAG). Power on. All three LEDs are off: ERR\_OUT, ERR\_STATUS and ERR\_DONE. Open Vivado HW manager and setup to program flash. Fail, see Tcl console output and error window. No message on serial port COM4.

```

open_hw
connect_hw_server
INFO: [Labtools 27-2285] Connecting to hw_server url TCP:localhost:3121
open_hw_target
INFO: [Labtoolstcl 44-466] Opening hw_target localhost:3121/xilinx_tcf/Digilent/25163300129EA
set_property PROGRAM.FILE {C:/Cristian/CodeLib/Trenz/TE0803/test_board_buid_09/vivado/test_board_buid_09.runs/impl_1/zusys_wrapper.bit} [get_hw_devices xczu4_0]
current_hw_device [get_hw_devices xczu4_0]
refresh_hw_device -update_hw_probes false [lindex [get_hw_devices xczu4_0] 0]
INFO: [Labtools 27-1435] Device xczu4 (JTAG device index = 0) is not programmed (DONE status = 0).
create_hw_cfgmem -hw_device [lindex [get_hw_devices] 0] -mem_dev [lindex [get_cfgmem_parts (mt25qu512-gspi-x8-dual_parallel)] 0]
current_hw_device [get_hw_devices arm_dap_1]
refresh_hw_device -update_hw_probes false [lindex [get_hw_devices arm_dap_1] 0]
current_hw_device [get_hw_devices xczu4_0]
set_property PROGRAM.ADDRESS_RANGE {use_file} [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.FILES {list "C:/Cristian/CodeLib/Trenz/TE0803/TrenzForum/John_hello_te0803/BOOT.bin" } [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.ZYNQ_FSBL {C:/Cristian/CodeLib/Trenz/TE0803/TrenzForum/John_hello_te0803/zynqmp_fsbl_flash.elf} [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.BLANK_CHECK 0 [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.ERASE 1 [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.CFG_PROGRAM 1 [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.VERIFY 1 [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
set_property PROGRAM.CHECKSUM 0 [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
startgroup
program_hw_cfgmem -hw_cfgmem [ get_property PROGRAM.HW_CFGMEM [lindex [get_hw_devices xczu4_0] 0]]
Problem in running uboot
Flash programming initialization failed.
ERROR: [Labtools 27-3161] Flash Programming Unsuccessful
ERROR: [Common 17-39] 'program_hw_cfgmem' failed due to earlier errors.

```



**ADDITIONAL info:** System Monitor screenshot below: why is VCC\_PSDDR\_504 zero volts? Does it mean the DDR is not power up? Which one is missing (using schematic notations): DDR\_1V2 or DDR\_PLL (1V8) Does it means EN\_DDR (page 24 and page 3 J2-112) is not set? But EN\_DDR==J2-112 is set to S3A switch at 3V3 on carrier board, so it should be OK.

Also, VCC\_PSINTFP is zero...?

Hardware	
<div> <div> <div>?</div> <div>—</div> <div>□</div> <div>🔍</div> <div>×</div> </div> <div> <div>🔍</div> <div>⌵</div> <div>⌶</div> <div>🔔</div> <div>▶</div> <div>⏭</div> <div>■</div> <div>⚙️</div> </div> </div>	
Name	Status
localhost (1)	Connected
<div> <div>📁</div> <div> <div>🔍</div> <div>xilinx_tcf/Digilent/2516330012...</div> </div> </div>	Open
<div> <div>⌵</div> <div> <div>⚙️</div> <div>xczu4_0 (2)</div> </div> </div>	Not programmed
<div> <div>🔧</div> <div>SysMon (System Monitor)</div> </div>	
<div> <div>⚡</div> <div>mt25qu512-qspi-x8-dual_...</div> </div>	
<div> <div>⌵</div> <div> <div>⚙️</div> <div>arm_dap_1 (1)</div> </div> </div>	N/A
<div> <div>🔧</div> <div>SysMon (System Monitor)</div> </div>	

System Monitor Core Properties				
<div> <div>🔧 SysMon</div> <div> <div>⬅️</div> <div>➡️</div> <div>⚙️</div> </div> </div>				
Sensor	Current	Min	Max	
🔍 TEMPERATURE	42.6°C	37.1°C	46.5°C	<div> <div>^</div> <div></div> <div>⌵</div> </div>
🔍 VCC_PSINTLP	0.841V	0.841V	0.844V	
🔍 VCC_PSINTFP	0.000V	2.997V	0.000V	
🔍 VCC_PSAUX	1.808V	1.805V	1.811V	
🔍 VCC_PSDDR_504	0.000V	2.997V	0.000V	
🔍 VCC_PSIO3_503	1.787V	1.781V	1.787V	
🔍 VCC_PSIO0_500	1.781V	1.781V	1.787V	
🔍 VCC_PSIO1_501	1.781V	1.781V	1.787V	
🔍 VCC_PSIO2_502	1.787V	1.781V	1.787V	
🔍 PS_MGTRAVCC	0.000V	2.997V	0.000V	
🔍 PS_MGTRAVTT	0.000V	2.997V	0.000V	
🔍 VP_VN	0.000V			
🔍 VAUXP0_VAUXN0	0.000V			
🔍 VAUXP1_VAUXN1	0.000V			
🔍 VAUXP2_VAUXN2	0.000V			
🔍 VAUXP3_VAUXN3	0.000V			
🔍 VAUXP4_VAUXN4	0.000V			
🔍 VAUXP5_VAUXN5	0.000V			
🔍 VAUXP6_VAUXN6	0.000V			
<div> <div>General</div> <div>Properties</div> <div>Sensors</div> </div>				