[Arm] Break command returns "emulation running"

2026-09-15 - Comments (0) - Arm

The target did not respond to the break request. Possible reasons are:

- Target is in secure mode, and debugging in secure mode is not possible. The message (secure) is displayed in this case in the status line.
- Processor stall. See below.
- The processor is in power saving mode
- In SMP, not all cores are accessible: retry after **CORE.ASSIGN 1.** or **CORE.ASSIGN 2.**
- Core has no power or is in reset
- If the message running (reset) appears, then it might be that the power supply does not deliver enough power

Processor Stall

The target does not respond.

Typical example: the target accessed a non-defined address, which causes a bus stall.

ETM Trace

If the problem can be reproduced, then perform the following steps:

1. Set-up the trace (on-chip / off-chip)
2. Execute **Trace.Arm**
3. Reproduce the problem
4. Execute **Trace.OFF**
5. Check the **Trace.List** window starting from the end

If the problem cannot be reproduced (e.g. sporadic problem):

1. Execute **Trace.Arm** (if trace is not already armed).
2. Execute **Trace.OFF**

3. Check the end of the **Trace.List** window

In case of CPU crash/stall, the memory to decode the trace might be not accessible. Load in this case the application to the **VM:** (e.g. **Data.LOAD.Elf MyFile.elf VM:0**) and set **Trace.ACCESS VM** in order to get results in the **Trace.List** window.

Sample the program counter with the SNOOPer

Use the **SNOOPer** to have an idea around which address the target is executing

```
SNOOPer.Mode PC
SNOOPer.Arm
; wait a couple of seconds
SNOOPer.OFF
SNOOPer.List
```

If the PC is changing in the **SNOOPer.List** window then the processor is not stalled.
If the PC stuck at a single address:

- If this address corresponds to an idle loop, then this is not an error
- Otherwise, the processor is most probably stuck around this address so check your code based on the PC value.

  Please note however that the program counter address sampled by the **SNOOPer** is not necessarily in this case the same address which caused the processor stall.

- Tags
- Arm