[Arm] How to access the memory on Cortex-A/R on run-time?

2026-08-14 - Comments (0) - Arm

The debugger cannot access the memory on run-time through the CPU. Thus, an external bus has to be used, e.g. AHB or AXI. This access method only works if an AHB or AXI is present.

You have to take into consideration that the AHB/AXI bus will generally bypass caches. In the case where the address is cacheable and the memory value is only updated in the cache but not in memory (write-back cache), its current state will be invisible to the debugger.

To enable the real-time memory access, use the command:

```
SYStem.MemAccess AXI | AHB | ...
```

Use the **E:** access class for memory dumps and the **%E** option when displaying variables:

```
Data.dump E:0x10000000
Var.View %E MyVar
```

- Tags
- Arm Cortex
- CoreSight