

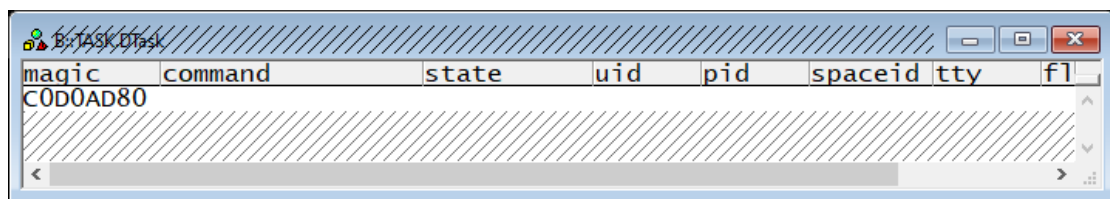
# [Linux] Troubleshooting an awareness problem

2025-04-02 - [Comments \(0\)](#) - [OS-aware debugging](#)

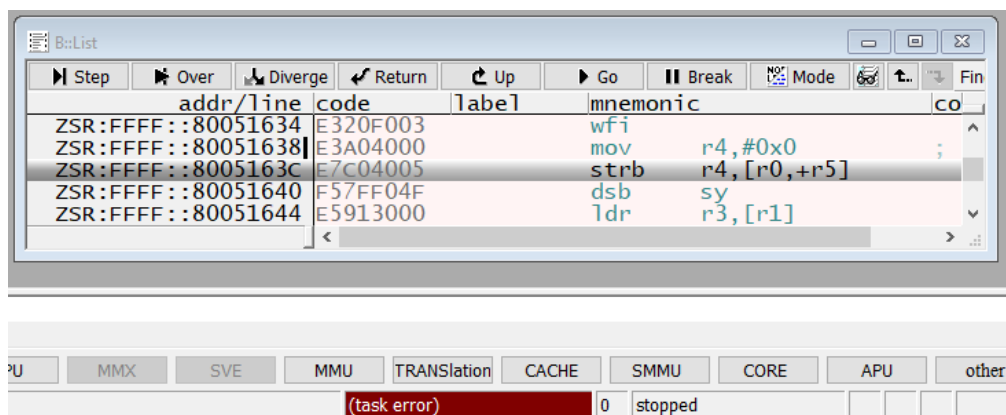
If you encounter issues with the Linux awareness setup, consider the following troubleshooting steps:

## Symptoms of Awareness Issues

- Some or all awareness windows (e.g., TASK.DTask, TASK.Process) show errors or appear hatched.



- The current task is not displayed while the target is stopped after Linux has booted. Instead, you see errors such as "(task error)" or "(other)". Moreover, the List window shows the space-ID 0xFFFF.



# Possible Causes and Solutions

## 1. Kernel Configuration Issues

Ensure that the kernel is configured correctly. Common causes include:

- Missing the kernel option "**Compile the kernel with debug info**" (CONFIG\_DEBUG\_INFO).
- Enabling "**Reduce debugging information**" (CONFIG\_DEBUG\_REDUCED), which should be avoided.
- Randomization caused by CONFIG\_RANDOMIZE\_BASE or CONFIG\_RANDSTRUCT\_FULL. Both options should be avoided.

For more details, refer to the "Kernel Configuration" chapter in [Training Linux Debugging](#).

## 2. Translation Issues

Try disabling the translation with:

```
TRANSLation.OFF
```

If this improves the results, the issue may be related to incorrect translation settings.

An auto-detection script for translation settings is available for Arm under:

```
~/demo/arm/kernel/linux/board/generic-template/detect_translation.cmm
```

**Important:** Read the script header carefully. If the script returns an error, contact technical support by opening a [new ticket](#).

## 3. Kernel Mismatch Issues

Verify that the loaded vmlinux file matches the running kernel:

Check if the loaded vmlinux matches the executed kernel binary:

- Retrieve the target Linux banner by executing the command **cat /proc/version** in the terminal window
- Load the vmlinux file including code into the debugger virtual memory with **Data.LOAD.Elf vmlinux AVm:0 /NoSymbol**
- Dump the **linux\_banner** from loaded vmlinux: **Data AVm:linux\_banner /NoHex /NoOrient**
- Compare both strings including timestamps

Notes

- In OpenEmbedded/BitBake environments, multiple kernel variants (Image-5.10-minimal, Image-5.10-xen, etc.) may be built in the same directory. The loaded vmlinux might not reflect the kernel binary on the target.
- Since Linux 5.9, the 0x80000 offset has been removed, but some bootloaders may still start the kernel at 0x80000, causing relocations to the next aligned address.

Refer for more information to [Training Linux Debugging](#).

