

Debugging of OEM protocols on Linux/RaspberryPI platforms

Procedure for debugging of OEM protocols on Linux/RaspberryPI platforms

- Disable the autostart of the KOM process (in the process configuration using CNF) and turn off the KOM process (using Sysconsole).
- Modify the *Makefile* for the OEM protocol and add the "-g" flag to it so that the compiler includes debugging information. Example: change from
`CFLAGS=-I ../h`
to
`CFLAGS=-g -I ../h`
- Recompile the OEM protocol and copy the resulting library to the *protdll* directory:

```
cd /home/d2000/oem
rm template.o template.so
make
cp template.so /opt/d2000/protdll/oem_prot11.so
```
- In the directory where the source codes of the OEM protocol are, start the debugger and set the breakpoint to a specific line/lines in the OEM protocol (e.g. within the *Init* or *ReadAllPoints* procedure)
Confirm "y" that you want to activate the breakpoint when loading future shared libraries.

```
cd /home/d2000/oem
gdb /opt/d2000/bin/kom
(gdb) break template.c:73
No symbol table is loaded. Use the "file" command.
Make breakpoint pending on future shared library load? (y or [n]) y
```
- Start the KOM process (the */F0* parameter is used to turn off the watchdog)

```
run /F0
```
- The debugger stops on the specified line of the OEM protocol source line:

```
[Switching to Thread 0x72f161a0 (LWP 3369)]
Thread 14 "S204b" hit Breakpoint 1, ReadAllPoints (St=0x75847580)
at template.c:73
73 template.c: Permission denied.
(gdb) bt
#0 ReadAllPoints (St=0x75847580) at template.c:73
#1 0x00eb00b0 in ?? ()
#2 0x006ae364 in ?? ()
Backtrace stopped: previous frame identical to this frame (corrupt stack?)
```
- Continue debugging with the standard *gdb* debugger commands.



Related pages:

[D2000 KomAPI](#)
[D2000 KomAPI - interface description](#)
[D2000 KomAPI - interface structures](#)
[D2000 KomAPI - interface functions](#)
[D2000 KomAPI - interface call-back functions](#)