

---

## Hints for debugging with the Nohau Emulator

---

Version 4.0 of the Tasking IEEE51 formatter utility generates extra debug information. The additional information in this application note enables debugging software to read variables that are allocated to registers. The Tasking CrossView debuggers, for example, fully exploit the additional information available in the 4.0 format of the IEEE file. This results in optimal HLL debugging.

Because the IEEE reader provided with the Nohau emulator is (at the moment of writing) not capable of reading the version 4.0 format of the IEEE51 output file there are a few small limitations. To build the application that is subject to the Nohau debugging session we advise you to take care of the following points:

1. Compile using the option `-g`. This enables the compiler to emit symbolic debugging info.
2. Compile using the options `-OWR`. This prevents the compiler from allocating variables and function parameters to registers.
3. Because of point 2, make the main function `_regparm` qualified. This is needed because `cstart.asm` references to a `_regparm` main function (`_?`). The `-OR` option however, overrides the default register parameter passing feature of the version 4.0 tool chain.
4. Format the file into a IEEE-695 file (`*.abs`) using the IEEE51 utility delivered with the C51 package. To generate a IEEE-695 file that can be read by Nohau use the `-c` option. This option makes IEEE51 generate a file compatible with version 3.0 of the C8051 tool chain.

We recommend you to check on a regular basis with Tasking's and Nohau's Technical Support whether any updates are being released. Visit the websites for the latest availability:

- <http://www.nohau.com>
- <http://www.tasking.nl>