Synthesis is failing due to an error within the DFNode::findDFPin() function

Hello,

I encountered a crash while using Vivado for synthesis on my Linux system. The version of Vivado I am using is 2023.2. I performed the following commands in the Ubuntu terminal:

vivado -mode tcl

read_verilog rtl.v

synth_design -top top

During the synthesis process, Vivado crashed and generated a log file containing information about the crash.

WARNING: [Synth 8-3936] Found unconnected internal register 'reg355_reg' and it is trimmed from '8' to '7' bits. [/home/user/vivado_project/rtl.v:928]

Abnormal program termination (11)

Please check '/home/user/vivado_project/hs_err_pid3197324.log' for details segfault in /home/user/software/vivado2023/Vivado/2023.2/bin/unwrapped/lnx64.o/vivado -exec vivado -mode tcl, exiting...

user@user-System-Product-Name: /vivado_project\$ Parent process (pid 3197324) has died. This helper process will now exit

I have attached our design file rtl.v and the log file from Vivado's output.

I am looking forward to your response.

Thank you!