

OPENLANE

vswdworkshop [Running] - Oracle VirtualBox
File Machine View Input Devices Help

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Activities Terminal Thu 18:43
vdsuser@vdsquadron: ~/Desktop/work/tools/openlane_working_dir/openlane
File Edit View Search Terminal Help
vdsuser@vdsquadron:~$ cd Desktop/work/tools/openlane_working_dir/openlane
vdsuser@vdsquadron:~/Desktop/work/tools/openlane_working_dir/openlane$ docker
bash-4.2$ ./flow.tcl -interactive
[INFO]:
[INFO]: Version: v0.21
[INFO]: Running interactively
% package require openlane 0.9
% prep -design picorv32a
[INFO]: Using design configuration at /openLANE_flow/designs/picorv32a/config.tcl
[INFO]: Sourcing Configurations from /openLANE_flow/designs/picorv32a/config.tcl
[INFO]: PDKs root directory: /home/vdsuser/Desktop/work/tools/openlane_working_dir/pdks
[INFO]: PDK: sky130A
[INFO]: Setting PDKPATH to /home/vdsuser/Desktop/work/tools/openlane_working_dir/pdks/sky130A
[INFO]: Standard Cell Library: sky130_fd_sc_hd
[INFO]: Sourcing Configurations from /openLANE_flow/designs/picorv32a/config.tcl
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ENG INTEL 6:43 PM 30-Jan-25

File Machine View Input Devices Help

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Activities Terminal Thu 20:06
vdsuser@vdsquadron: ~/Desktop/work/tools/openlane_working_dir/openlane
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sky130_fd_sc_hd_or4bb_2 2
Chip area for module 'picorv32a': 147712.918400
29. Executing Verilog backend.
Dumping module 'picorv32a'.
Warnings: 307 unique messages, 307 total
End of script. Logfile hash: f14d255322, CPU: user 21.43s system 6.67s, MEM: 96.54 MB peak
Yosys 0.9+3621 (git sha1 84e9fa7, gcc 8.3.1 -fPIC -Os)
Time spent: 53K 2x abc (29 sec), 10% 33x opt_expr (5 sec), ...
[INFO]: Changing netlist from 0 to /openLANE_flow/designs/picorv32a/runs/30-01_14-32/results/synthesis/picorv32a.synthesis.v
[INFO]: Running Static Timing Analysis...
[INFO]: current step index: 2
OpenSTA 2.3.0 38b40303a8 Copyright (c) 2019, Parallax Software, Inc.
License GPLv3: GNU GPL version 3 <http://gnu.org/licenses/gpl.html>
This is free software, and you are free to change and redistribute it
under certain conditions; type 'show_copyright' for details.
This program comes with ABSOLUTELY NO WARRANTY; for details type 'show_warranty'.
Warning: /home/vdsuser/Desktop/work/tools/openlane_working_dir/pdks/sky130A/lib.ref/sky130_fd_sc_hd/lib/sky130_fd_sc_hd_ff_n40C_1v95.lib line 31, default_operating_condition ff_n40C_1v95 not found.
Warning: /home/vdsuser/Desktop/work/tools/openlane_working_dir/pdks/sky130A/lib.ref/sky130_fd_sc_hd/lib/sky130_fd_sc_hd_ss_100C_1v60.lib line 32, default_operating_condition ss_100C_1v60 not found.
create_clock [get_ports $::env(CLOCK_PORT)] -name $::env(CLOCK_PORT) -period $::env(CLOCK_PERIOD)
set input_delay_value [expr $::env(CLOCK_PERIOD) * $::env(IO_PCT)]
set output_delay_value [expr $::env(CLOCK_PERIOD) * $::env(IO_PCT)]
puts "[INFO]: Setting output delay to: $output_delay_value"
[INFO]: Setting output delay to: 4.9460000000000001
puts "[INFO]: Setting input delay to: $input_delay_value"
[INFO]: Setting input delay to: 4.9460000000000001
set_max_fanout $::env(SYNTH_MAX_FANOUT) [current_design]
set clk_idx [lsearch [all_inputs] [get_port $::env(CLOCK_PORT)]]
#set rst_idx [lsearch [all_inputs] [get_port resetn]]
set all_inputs_wo_clk [lreplace [all_inputs] $clk_idx $clk_idx]
#set all_inputs_wo_clk_rst [lreplace $all_inputs_wo_clk $rst_idx $rst_idx]
set all_inputs_wo_clk_rst $all_inputs_wo_clk
# correct resetn
set input_delay $input_delay_value -clock [get_clocks $::env(CLOCK_PORT)] $all_inputs_wo_clk_rst
#set input_delay 0.0 -clock [get_clocks $::env(CLOCK_PORT)] {resetn}
set output_delay $output_delay_value -clock [get_clocks $::env(CLOCK_PORT)] [all_outputs]
# TODO set this as parameter
set_driving_cell -lib_cell $::env(SYNTH_DRIVING_CELL) -pin $::env(SYNTH_DRIVING_CELL_PIN) [all_inputs]
set cap_load [expr $::env(SYNTH_CAP_LOAD) / 1000.0]
puts "[INFO]: Setting load to: $cap_load"
[INFO]: Setting load to: 0.01765
set_load $cap_load [all_outputs]
tns -759.46
wns -24.89
[INFO]: Synthesis was successful
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ENG INTEL 8:06 PM 30-Jan-25

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File Edit View Search Terminal Help
[WARNING PSM-0030] Vsrc location at (285.520um, 10.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (286.200um, 27.290um).
[WARNING PSM-0030] Vsrc location at (425.520um, 10.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (426.600um, 27.290um).
[WARNING PSM-0030] Vsrc location at (565.520um, 10.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (567.000um, 27.290um).
[WARNING PSM-0030] Vsrc location at (285.520um, 150.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (286.200um, 180.470um).
[WARNING PSM-0030] Vsrc location at (425.520um, 150.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (426.600um, 180.470um).
[WARNING PSM-0030] Vsrc location at (565.520um, 150.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (567.000um, 180.470um).
[WARNING PSM-0030] Vsrc location at (565.520um, 290.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (567.000um, 333.650um).
[WARNING PSM-0030] Vsrc location at (5.520um, 430.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (5.400um, 486.830um).
[WARNING PSM-0030] Vsrc location at (145.520um, 430.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (145.800um, 486.830um).
[WARNING PSM-0030] Vsrc location at (285.520um, 430.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (286.200um, 486.830um).
[WARNING PSM-0030] Vsrc location at (425.520um, 430.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (426.600um, 486.830um).
[WARNING PSM-0030] Vsrc location at (565.520um, 430.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (567.000um, 486.830um).
[WARNING PSM-0030] Vsrc location at (285.520um, 570.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (286.200um, 640.010um).
[WARNING PSM-0030] Vsrc location at (425.520um, 570.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (426.600um, 640.010um).
[WARNING PSM-0030] Vsrc location at (565.520um, 570.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (567.000um, 640.010um).
[INFO PSM-0031] Number of nodes on net VPWR = 20600.
[INFO PSM-0037] G matrix created successfully.
[INFO PSM-0040] Connection between all PDN nodes established in net VPWR.
[WARNING PSM-0016] Voltage pad location (vsrc) file not specified, defaulting pad location to checkerboard pattern on core area.
[WARNING PSM-0017] X direction bump pitch is not specified, defaulting to 140um.
[WARNING PSM-0018] Y direction bump pitch is not specified, defaulting to 140um.
[WARNING PSM-0019] Voltage on net VGND is not explicitly set.
[WARNING PSM-0021] Using voltage 0.000V for ground network.
[INFO PSM-0026] Creating G matrix.
[INFO PSM-0028] Extracting power stripes on net VGND.
[WARNING PSM-0030] Vsrc location at (5.520um, 10.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (5.400um, 103.880um).
[WARNING PSM-0030] Vsrc location at (145.520um, 10.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (145.800um, 103.880um).
[WARNING PSM-0030] Vsrc location at (285.520um, 10.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (286.200um, 103.880um).
[WARNING PSM-0030] Vsrc location at (425.520um, 10.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (426.600um, 103.880um).
[WARNING PSM-0030] Vsrc location at (565.520um, 10.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (567.000um, 103.880um).
[WARNING PSM-0030] Vsrc location at (285.520um, 150.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (286.200um, 103.880um).
[WARNING PSM-0030] Vsrc location at (425.520um, 150.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (426.600um, 103.880um).
[WARNING PSM-0030] Vsrc location at (565.520um, 150.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (567.000um, 103.880um).
[WARNING PSM-0030] Vsrc location at (565.520um, 290.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (567.000um, 257.060um).
[WARNING PSM-0030] Vsrc location at (5.520um, 430.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (5.400um, 410.240um).
[WARNING PSM-0030] Vsrc location at (145.520um, 430.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (145.800um, 410.240um).
[WARNING PSM-0030] Vsrc location at (285.520um, 430.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (286.200um, 410.240um).
[WARNING PSM-0030] Vsrc location at (425.520um, 430.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (426.600um, 410.240um).
[WARNING PSM-0030] Vsrc location at (565.520um, 430.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (567.000um, 410.240um).
[WARNING PSM-0030] Vsrc location at (285.520um, 570.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (286.200um, 563.420um).
[WARNING PSM-0030] Vsrc location at (425.520um, 570.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (426.600um, 563.420um).
[WARNING PSM-0030] Vsrc location at (565.520um, 570.880um) and size =10.000um, is not located on a power stripe. Moving to closest stripe at (567.000um, 563.420um).
[INFO PSM-0031] Number of nodes on net VGND = 19223.
[INFO PSM-0037] G matrix created successfully.
[INFO PSM-0040] Connection between all PDN nodes established in net VGND.
[INFO]: PDN generation was successful.
[INFO]: Changing layout from /openLANE_flow/designs/picorv32a/runs/30-01_14-32/results/floorplan/picorv32a.floorplan.def to /openLANE_flow/designs/picorv32a/runs/30-01_14-32/tmp/floorplan/7-pdn.def
1
%
```