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Experiment Report

Start of automated test report 2023-05-23 16:06:11 Author=UNKNOWN@workstation obo Luke Vassallo

Machine Information

sysname=Linux

nodename=workstation

release=5.19.0-41-generic

version=#42~22.04.1-Ubuntu SMP PREEMPT_DYNAMIC Tue Apr 18 17:40:00 UTC 2

machine=x86_64

CPU arch: X86 64

CPU bits: 64

CPU brand: Intel(R) Core(TM) i7-10700K CPU @ 3.80GHz

CPU cores: 8

CPU base clock: 3.8000 GHz CPU boost clock: 3.7920 GHz System Memory: 31.35GB

Nvidia driver version: 525.105.17 Device 0: NVIDIA GeForce GTX 1080

Device 0: 8.0GB

Library Information

python: 3.8.16

torch: 1.13.1+cu117

optuna: 3.1.1 numpy: 1.23.3 pandas: 2.0.1 matplotlib: 3.7.1 seaborn: 0.12.2

pcb library: generation of .pcb files.

Library version: 0.0.12 Library built with: C++14

Library built on: Mar 3 2023 23:10:31

netlist_graph: Graph pre-processing library for PCB component placement.

Library version: 0.1.16 Library built with: C++14

Library built on: Mar 3 2023 23:10:32

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training_td3_cuda_262:1684831023_0

Steps per trial = 600Euclidean wirelength (w) = 2 Half perimeter wirelength (hpwl) = 6.0Overlap (o) = 2.0

Estimated Wirelength (HPWL)

Mean over all trials in run //home/gitlab-runner/builds/TfLwHVT9/0/luke/rl_pcb/tests/05_training_td3_cuda_fast/work/eval_testing_set/1684831023_0

| pcb name | run | 0% overlap (#)1 | 10% overlap (#)1 | 20% overlap (#)1 | simulated annealing |
|-------------------------|--------------|------------------|------------------|------------------|---------------------|
| voltage_datalogger_adc0 | 1684831023_0 | 39.68 ± 0.0 (1) | 49.11 ± 9.24 (3) | 43.82 ± 8.67 (4) | 30.25 ± 3.84 (4) |
| voltage_datalogger_adc2 | 1684831023_0 | 16.07 ± 2.55 (4) | 15.11 ± 3.09 (4) | 14.78 ± 3.3 (4) | 12.94 ± 0.62 (4) |
| voltage_datalogger_afe | 1684831023_0 | 59.0 ± 1.98 (2) | 60.27 ± 3.64 (3) | 58.82 ± 3.41 (4) | 48.58 ± 2.08 (4) |

 $^{^{1}}$ # indicates the number of layouts over which the mean \pm std was computed

Routed Wirelength

Mean over all trials in run //home/gitlab-runner/builds/TfLwHVT9/0/luke/rl_pc b/tests/05_training_td3_cuda_fast/work/eval_testing_set/1684831023_0

| pcb name | run | 0% overlap (#)1 | 10% overlap (#)1 | 20% overlap (#)1 | simulated annealing |
|-------------------------|--------------|------------------|------------------|------------------|---------------------|
| voltage_datalogger_adc0 | 1684831023_0 | 46.82 ± 0.0 (1) | 54.43 ± 7.58 (3) | 51.07 ± 11.4 (4) | 38.89 ± 12.95 (4) |
| voltage_datalogger_adc2 | 1684831023_0 | 13.88 ± 2.71 (4) | 15.8 ± 1.88 (4) | 14.52 ± 2.61 (4) | 13.33 ± 1.57 (4) |
| voltage_datalogger_afe | 1684831023_0 | 76.15 ± 1.81 (2) | 74.28 ± 3.66 (3) | 75.46 ± 7.13 (4) | 75.3 ± 3.94 (4) |

 $^{^{\}rm 1}$ # indicates the number of layouts over which the mean \pm std was computed

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training_td3_cuda_262:1684831023_1

Steps per trial = 600Euclidean wirelength (w) = 2 Half perimeter wirelength (hpwl) = 6.0Overlap (o) = 2.0

Estimated Wirelength (HPWL)

Mean over all trials in run //home/gitlab-runner/builds/TfLwHVT9/0/luke/rl_pcb/tests/05_training_td3_cuda_fast/work/eval_testing_set/1684831023_1

| pcb name | run | 0% overlap (#)1 | 10% overlap (#)1 | 20% overlap (#)1 | simulated annealing |
|-------------------------|--------------|------------------|------------------|------------------|---------------------|
| voltage_datalogger_adc0 | 1684831023_1 | nan ± nan (0) | nan ± nan (0) | 40.33 ± 0.0 (1) | 30.25 ± 3.84 (4) |
| voltage_datalogger_adc2 | 1684831023_1 | 16.86 ± 1.89 (4) | 16.49 ± 1.74 (4) | 15.48 ± 1.32 (4) | 12.94 ± 0.62 (4) |
| voltage_datalogger_afe | 1684831023_1 | 61.7 ± 0.0 (1) | 61.7 ± 0.0 (1) | 63.82 ± 2.12 (2) | 48.58 ± 2.08 (4) |

 $^{^{1}}$ # indicates the number of layouts over which the mean \pm std was computed

Routed Wirelength

Mean over all trials in run //home/gitlab-runner/builds/TfLwHVT9/0/luke/rl_pcb/tests/05_training_td3_cuda_fast/work/eval_testing_set/1684831023_1

| pcb name | run | 0% overlap (#)1 | 10% overlap (#)1 | 20% overlap (#)1 | simulated annealing |
|-------------------------|--------------|------------------|------------------|------------------|---------------------|
| voltage_datalogger_adc0 | 1684831023_1 | nan ± nan (0) | nan ± nan (0) | 46.12 ± 0.0 (1) | 38.89 ± 12.95 (4) |
| voltage_datalogger_adc2 | 1684831023_1 | 17.24 ± 4.14 (4) | 17.33 ± 4.47 (4) | 17.02 ± 4.29 (4) | 13.33 ± 1.57 (4) |
| voltage_datalogger_afe | 1684831023_1 | 68.62 ± 0.0 (1) | 68.62 ± 0.0 (1) | 72.16 ± 3.53 (2) | 75.3 ± 3.94 (4) |

 $^{^{\}mathrm{1}}$ # indicates the number of layouts over which the mean \pm std was computed