

Energy Scope report

Date of the report: 2022/04/19 18:37:16

GENERAL INFORMATION

- Jobid: 20220419193315
- Command: /root/energy-consumption-of-gpu-benchmarks//results/night_exp_19_04/629_0//gpu0/scripts/script_final.sh
- Date of run: 2022/04/19 19:33:15.968664
- Duration (including ES prologue and epilogue): 3822 (sec)

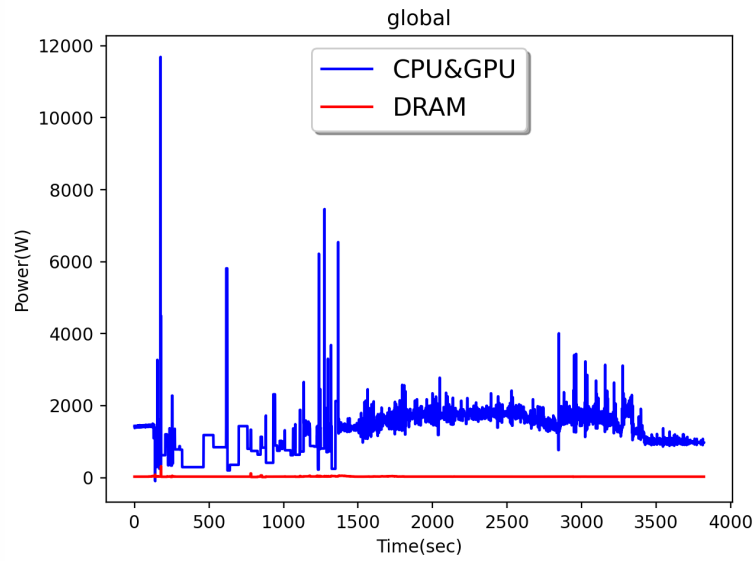
ARCHITECTURE INFORMATION

- nodelist: gemini-1
- processors type: Intel(R)Xeon(R)CPUE5-2698v4@2.20GHz (TDP=135W)
- gpu type: Tesla V100-SXM2-32GB (TDP=250W)

ENERGY DATA

- Ratio Energy / Duration= 1344.0 (J/sec)
- Application energy consumption measurement: 5136720 (J) 1.4269 (kWh)
- Global application energy consumption estimation: 6894840 (J) 1.9152 (kWh)
- Global application carbon production estimation (FR): 97.857 (gCO2)
- Energy efficiency (ref TDP): 59.21 (%)

Eprofile:



ENERGY ACQUISITION INFORMATION

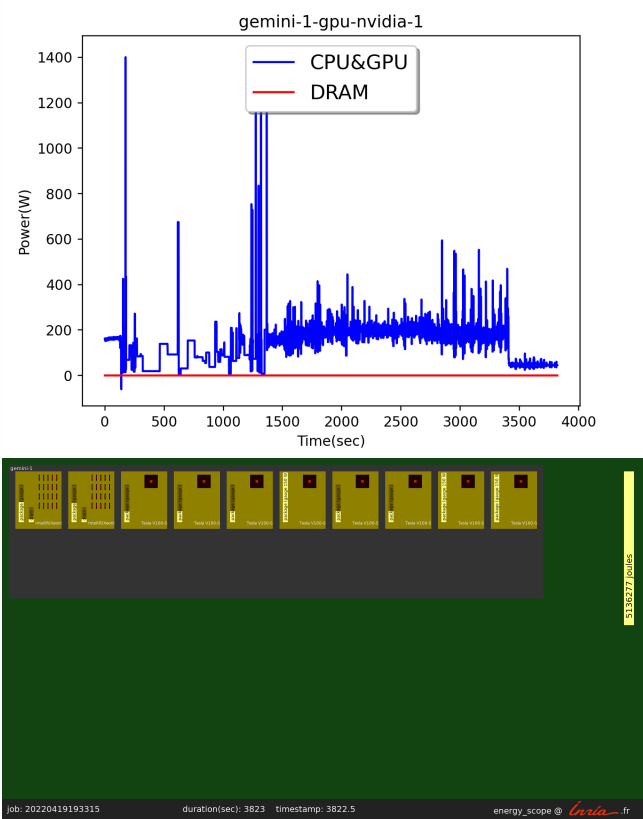
- Period(ms): 1571.731
- Acquisition quality (low, medium, high): low
- Information dumped: ecpu edram core_temperature

ENERGY BEHAVIOR

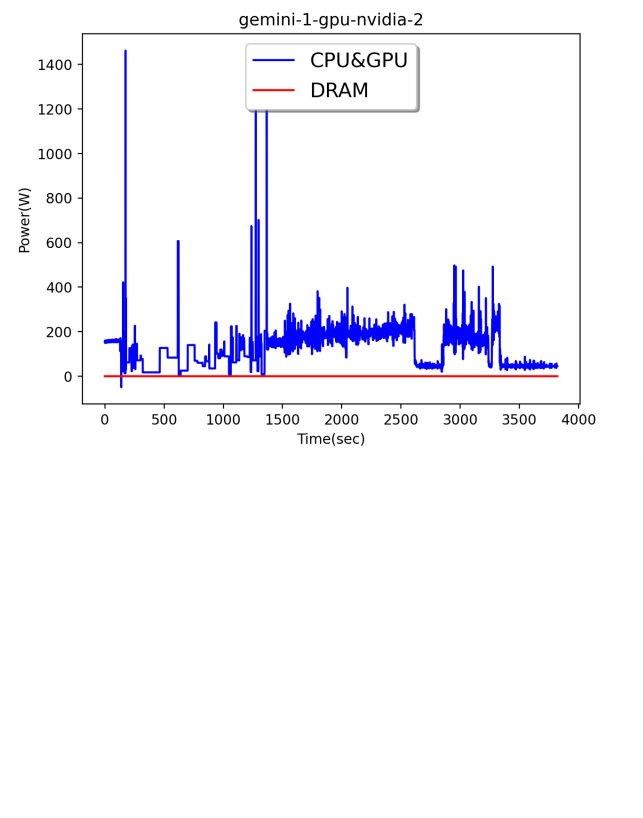
SUMMARY

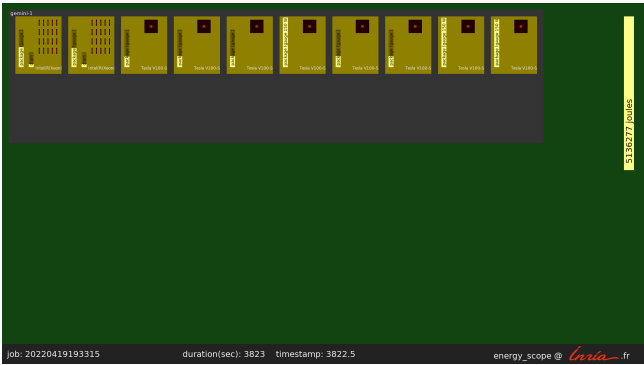
node	cpu/gpu	model	TDP (W)	Energy (J)	efficiency (%)	Cores Temp (C)
node gemini-1						
	cpu 0	Intel(R)Xeon(R)CPUE5-2698v4@2.20GHz	135	378947	63.2	59.1
	cpu 1	Intel(R)Xeon(R)CPUE5-2698v4@2.20GHz	135	366238	60.4	55.5
	gpu gpu-nvidia-0	Tesla V100-SXM2-32GB	250	513579	53.7	20.0
	gpu gpu-nvidia-1	Tesla V100-SXM2-32GB	250	531911	55.7	20.0
	gpu gpu-nvidia-2	Tesla V100-SXM2-32GB	250	476340	49.9	20.0

*node gemini-1/gpu-nvidia-1

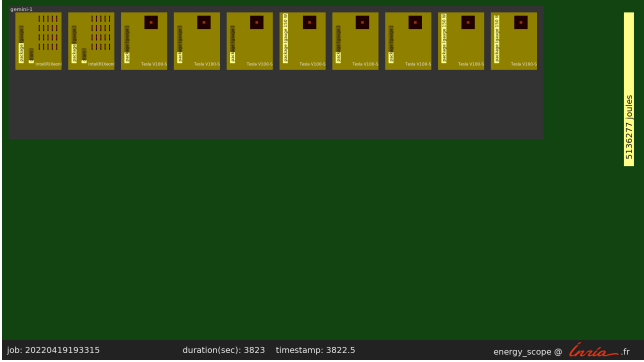
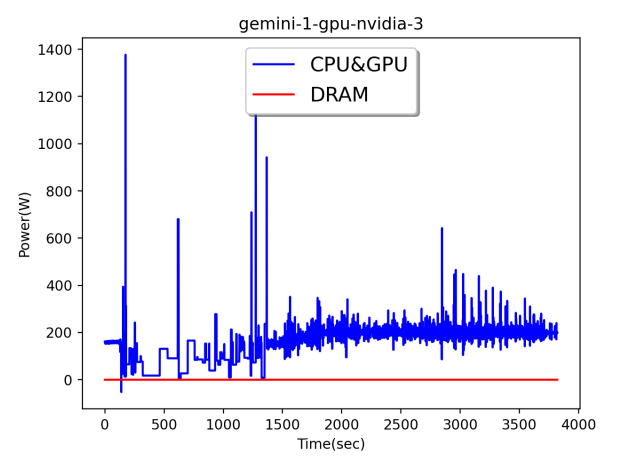


*node gemini-1/gpu-nvidia-2

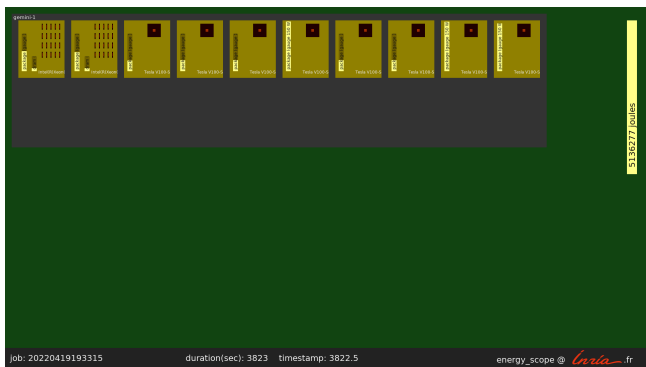




*node gemini-1/gpu-nvidia-3

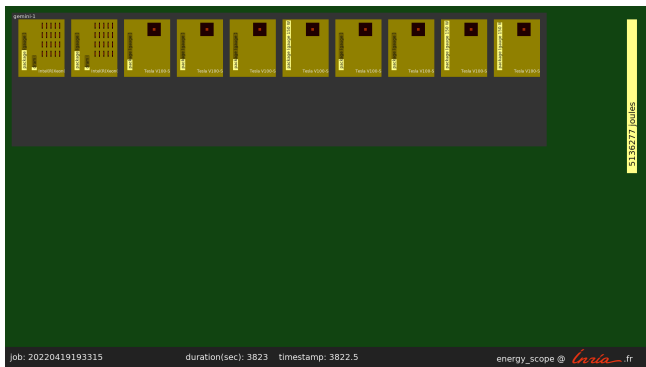


*node gemini-1/gpu-nvidia-4

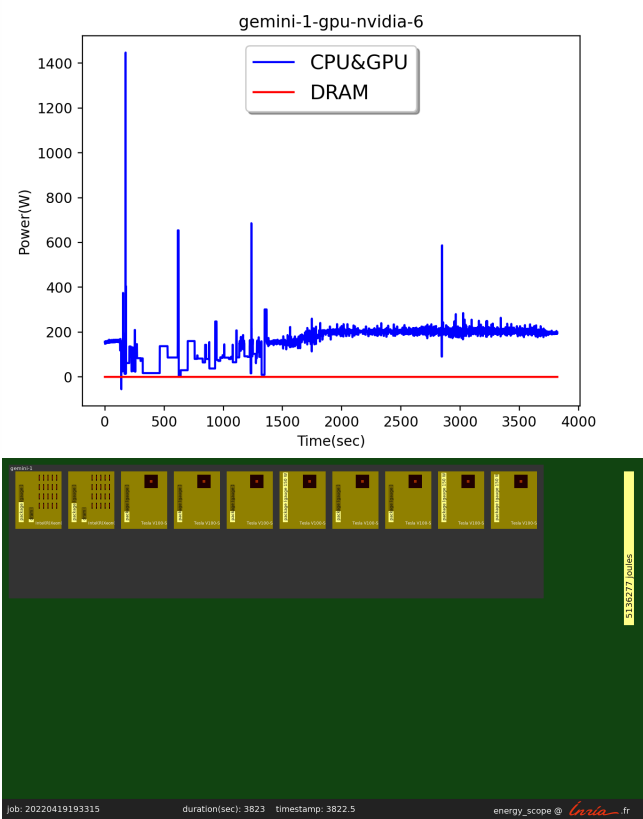


The graph displays the power consumption of the Gemini-1 GPU on an NVIDIA-5 system. The y-axis represents Power in Watts (W), ranging from 0 to 1400. The x-axis represents Time in seconds (sec), ranging from 0 to 4000. Two data series are plotted: CPU&GPU (blue line) and DRAM (red line). The CPU&GPU power shows high initial volatility, with a major peak exceeding 1400W within the first 100 seconds. Subsequent peaks occur around 600s, 1200s, and 2800s. After 1500s, the power stabilizes with frequent fluctuations between 100W and 250W. The DRAM power remains consistently low, near 0W, throughout the entire duration.

Time (sec)	CPU&GPU Power (W)	DRAM Power (W)
0	~150	~0
100	~1500	~0
500	~100	~0
600	~600	~0
1000	~150	~0
1200	~650	~0
1500	~200	~0
2000	~200	~0
2800	~500	~0
3500	~50	~0
4000	~50	~0



*node gemini-1/gpu-nvidia-6



*node gemini-1/gpu-nvidia-7

