

```

1 /Users/krutarth/.local/share/virtualenvs/Green-
  Streaming--Mobile-Device-Energy-Effi-im7_ynUX/bin/
  Python /Users/krutarth/Documents/GitHub/Green-
  Streaming--Mobile-Device-Energy-Efficiency/
  pythonProject/measurement..py
2 Password:2252
3 Password:2252
4 Machine model: Mac14,2
5 OS version: 22E261
6 Boot arguments:
7 Boot time: Thu Nov 30 19:55:18 2023
8
9
10
11 *** Sampled system activity (Sat Dec 2 14:11:54
  2023 +0100) (1007.17ms elapsed) ***
12
13 *** Running tasks ***
14
15 Name                      ID      CPU ms/s
  User% Deadlines (<2 ms, 2-5 ms) Wakeups (Intr,
  Pkg idle) Energy Impact
16 plugin-container           6970    440.86
  98.07  4.95   6.93          57.45   0.99
  37.26
17 powermetrics               13269   14.10
  13.42  0.00   0.00          0.99   0.00
  18.37
18 coreaudiod                 156     141.50
  97.60  0.00   0.00          94.10   0.99
  12.94
19 WindowServer                145     183.35
  82.93  9.90   0.00          117.87  9.90
  11.14
20 VLC                        13068   115.36
  79.06  6.93   2.97          44.57   0.99
  7.18
21 pycharm                     12305   53.08
  63.88  66.36  324.88        520.99  18.
  82          6.60
22 kernel_task                  0       95.02

```

22	0.00	385.30	1.98		871.62	104.
99		5.04				
23	com.apple.AppleUserHIDDrivers			320	60.75	
	54.40	0.00	0.00		0.00	0.00
		3.89				
24	plugin-container			10644	40.29	
	89.28	3.96	13.87		70.32	3.96
		3.14				
25	firefox			6874	27.84	
	60.06	0.00	0.00		60.42	2.97
		2.29				
26	mediaremoted			84	6.85	
	84.89	0.00	0.00		0.99	0.
00		0.59				
27	contextstored			150	4.05	
	82.44	0.00	0.00		0.00	0.
00		0.51				
28	ControlCenter			404	6.58	
	87.08	0.00	0.00		0.00	0.
00		0.45				
29	ContextStoreAgent			12217	2.71	
	78.82	0.00	0.00		0.00	0.
00		0.34				
30	jcef Helper (GPU)			12644	2.51	
	36.95	0.00	0.00		0.00	0.
00		0.32				
31	mds			105	4.62	
	51.79	0.00	0.00		0.99	0.
00		0.28				
32	mdworker_shared			13250	3.80	
	34.08	0.00	0.00		0.00	0.
00		0.28				
33	logd			78	2.93	
	66.03	0.00	0.00		0.00	0.
00		0.25				
34	plugin-container			6879	4.33	
	85.09	0.00	0.00		19.81	0.
99		0.24				
35	plugin-container			8569	2.75	
	88.82	0.00	0.00		2.97	0.
99		0.17				

36	airportd		158	2.03	
	50.62	0.00	0.00	2.97	0.
00		0.17			
37	mds_stores		314	2.25	
	72.03	0.00	0.00	0.00	0.
00		0.15			
38	DEAD_TASKS		-1	3.41	
	0.00	0.00	0.00	0.00	0.
00		0.14			
39	assistantd		12230	1.96	
	79.27	0.00	0.00	0.00	0.
00		0.13			
40	Python		12640	1.62	
	87.44	0.00	0.00	17.83	0.
00		0.12			
41	com.apple.AmbientDisplayAgent		1951	2.48	
	74.84	0.00	0.00	0.00	0.
00		0.12			
42	plugin-container		10643	1.18	
	89.07	0.00	0.00	2.97	0.
00		0.11			
43	launchd		1	1.58	
	26.33	0.00	0.00	0.00	0.
00		0.09			
44	mediaremoveagent		534	0.85	
	76.36	0.00	0.00	0.00	0.
00		0.07			
45	assistant_service		13054	0.95	
	78.38	0.00	0.00	0.00	0.
00		0.07			
46	homed		12237	0.86	
	77.00	0.00	0.00	0.00	0.
00		0.07			
47	corebrightnessd		141	1.85	
	61.79	0.00	0.00	0.00	0.
00		0.07			
48	plugin-container		9547	0.70	
	91.06	0.00	0.00	1.98	0.
00		0.07			
49	plugin-container		6974	0.71	
	88.74	0.00	0.00	2.97	0.

49	00	0.05			
50	lsd		391	0.62	
		28.46 0.00 0.00		0.99	0.
	00	0.04			
51	plugin-container		10613	0.43	
		75.74 0.00 0.99		2.97	0.
	00	0.03			
52	configd		89	0.24	
		28.24 0.00 0.00		0.00	0.
	00	0.03			
53	systemstats		87	0.40	
		32.91 0.00 0.00		0.99	0.
	00	0.03			
54	accountsdsd		393	0.40	
		11.81 0.00 0.00		1.98	0.
	00	0.02			
55	cfprefsd		146	0.40	
		30.05 0.00 0.00		0.99	0.
	00	0.02			
56	audioclocksyncd		293	0.58	
		64.95 0.00 0.00		0.00	0.
	00	0.02			
57	sharingd		477	0.48	
		44.51 0.00 0.00		0.00	0.
	00	0.02			
58	cfprefsd		381	0.33	
		30.37 0.00 0.00		0.99	0.
	00	0.02			
59	WirelessRadioManagerd		369	0.30	
		47.04 0.00 0.00		0.00	0.
	00	0.02			
60	lockoutagent		397	0.19	
		39.37 0.00 0.00		0.99	0.
	00	0.02			
61	opendirectoryd		116	0.32	
		62.49 0.00 0.00		0.00	0.
	00	0.02			
62	PerfPowerServices		1917	0.46	
		69.76 0.00 0.00		0.00	0.
	00	0.02			
63	Python		13261	0.01	

63	25.90	0.00	0.00	0.00	0.
00		0.02			
64	parsecd			10692	0.35
00	13.83	0.00	0.00	0.99	0.
00		0.01			
65	Code Helper (Plugin)			5053	0.37
00	88.01	2.97	0.00	5.94	0.
00		0.01			
66	notifyd			139	0.29
00	56.11	0.00	0.00	0.00	0.
00		0.01			
67	plugin-container			6880	0.31
00	87.67	0.00	0.00	1.98	0.
00		0.01			
68	diskarbitrationd			108	0.20
00	75.38	0.00	0.00	0.00	0.
00		0.01			
69	AirPlayXPCHelper			142	0.18
00	52.23	0.00	0.00	0.00	0.
00		0.01			
70	fseventsdsd			83	0.12
00	38.69	0.00	0.00	0.99	0.
00		0.01			
71	thermalmonitord			115	0.17
00	61.71	0.00	0.00	0.99	0.
00		0.01			
72	locationd			124	0.18
00	44.34	0.00	0.00	0.00	0.
00		0.01			
73	appleh13camerad			278	0.05
00	35.68	0.00	0.00	0.99	0.
00		0.01			
74	mDNSResponderHelper			240	0.04
00	45.56	0.00	0.00	0.99	0.
00		0.00			
75	com.apple.audio.Core-Audio-Drive			13171	0.02
00	37.01	0.00	0.00	0.99	0.
00		0.00			
76	ALL_TASKS			-2	1246.14
95	78.99	481.55	352.47	1920.23	145.
		113.43			

```
77
78
79 **** Battery and backlight usage ****
80
81
82
83 **** Network activity ****
84
85 out: 0.00 packets/s, 0.00 bytes/s
86 in: 0.00 packets/s, 0.00 bytes/s
87
88
89 **** Disk activity ****
90
91 read: 4.96 ops/s 910.97 KBytes/s
92 write: 24.82 ops/s 138.27 KBytes/s
93
94 **** Interrupt distribution ****
95
96 CPU 0:
97     Total IRQ: 2447.45 interrupts/sec
98     |-> IPI: 1663.07 interrupts/sec
99     |-> TIMER: 553.03 interrupts/sec
100 CPU 1:
101    Total IRQ: 2059.23 interrupts/sec
102    |-> IPI: 1474.43 interrupts/sec
103    |-> TIMER: 495.45 interrupts/sec
104 CPU 2:
105    Total IRQ: 1892.43 interrupts/sec
106    |-> IPI: 1393.01 interrupts/sec
107    |-> TIMER: 417.01 interrupts/sec
108 CPU 3:
109    Total IRQ: 1523.08 interrupts/sec
110    |-> IPI: 1175.57 interrupts/sec
111    |-> TIMER: 289.92 interrupts/sec
112 CPU 4:
113    Total IRQ: 328.64 interrupts/sec
114    |-> IPI: 190.63 interrupts/sec
115    |-> TIMER: 136.02 interrupts/sec
116 CPU 5:
117    Total IRQ: 166.80 interrupts/sec
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118      |-> IPI: 86.38 interrupts/sec
119      |-> TIMER: 80.42 interrupts/sec
120 CPU 6:
121      Total IRQ: 115.17 interrupts/sec
122      |-> IPI: 55.60 interrupts/sec
123      |-> TIMER: 59.57 interrupts/sec
124 CPU 7:
125      Total IRQ: 44.68 interrupts/sec
126      |-> IPI: 22.84 interrupts/sec
127      |-> TIMER: 21.84 interrupts/sec
128
129
130
131 **** Processor usage ****
132
133 E-Cluster HW active frequency: 1280 MHz
134 E-Cluster HW active residency: 75.55% (600 MHz
   : 0% 912 MHz: 50% 1284 MHz: 24% 1752 MHz: 12
   % 2004 MHz: 8.4% 2256 MHz: 4.3% 2424 MHz: 2.0%)
135 E-Cluster idle residency: 24.45%
136 E-Cluster instructions retired: 1.25441e+09
137 E-Cluster instructions per clock: 0.754474
138 CPU 0 frequency: 1244 MHz
139 CPU 0 idle residency: 65.05%
140 CPU 0 active residency: 34.95% (600 MHz: 0% 912
   MHz: 18% 1284 MHz: 8.3% 1752 MHz: 4.3% 2004 MHz
   : 2.1% 2256 MHz: 1.5% 2424 MHz: .34%)
141 CPU 1 frequency: 1303 MHz
142 CPU 1 idle residency: 65.21%
143 CPU 1 active residency: 34.79% (600 MHz: 0% 912
   MHz: 15% 1284 MHz: 10% 1752 MHz: 4.2% 2004 MHz
   : 3.1% 2256 MHz: 1.3% 2424 MHz: .72%)
144 CPU 2 frequency: 1359 MHz
145 CPU 2 idle residency: 67.66%
146 CPU 2 active residency: 32.34% (600 MHz: 0% 912
   MHz: 13% 1284 MHz: 8.4% 1752 MHz: 6.2% 2004 MHz
   : 3.7% 2256 MHz: 1.1% 2424 MHz: .39%)
147 CPU 3 frequency: 1354 MHz
148 CPU 3 idle residency: 72.05%
149 CPU 3 active residency: 27.95% (600 MHz: 0% 912
   MHz: 10% 1284 MHz: 8.9% 1752 MHz: 3.5% 2004 MHz
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149 : 3.6% 2256 MHz: .94% 2424 MHz: .66%)
150
151 P-Cluster HW active frequency: 866 MHz
152 P-Cluster HW active residency: 1.45% (660 MHz:
   85% 924 MHz: .65% 1188 MHz: 2.1% 1452 MHz: 2.1%
   1704 MHz: 2.0% 1968 MHz: 1.4% 2208 MHz: .78% 2400
   MHz: 1.5% 2568 MHz: .47% 2724 MHz: 1.4% 2868 MHz
   : .33% 2988 MHz: .18% 3096 MHz: 0% 3204 MHz: 1.6
   % 3324 MHz: .30% 3408 MHz: .14% 3504 MHz: 0%)
153 P-Cluster idle residency: 98.55%
154 P-Cluster instructions retired: 1.65106e+08
155 P-Cluster instructions per clock: 2.61524
156 CPU 4 frequency: 1542 MHz
157 CPU 4 idle residency: 98.39%
158 CPU 4 active residency: 1.61% (660 MHz: .47% 924
   MHz: .12% 1188 MHz: .34% 1452 MHz: .21% 1704 MHz
   : .08% 1968 MHz: .03% 2208 MHz: .00% 2400 MHz: .02
   % 2568 MHz: .01% 2724 MHz: .05% 2868 MHz: .00%
   2988 MHz: .00% 3096 MHz: 0% 3204 MHz: .03% 3324
   MHz: .00% 3408 MHz: .01% 3504 MHz: .23%)
159 CPU 5 frequency: 1372 MHz
160 CPU 5 idle residency: 99.30%
161 CPU 5 active residency: 0.70% (660 MHz: .19% 924
   MHz: .21% 1188 MHz: .03% 1452 MHz: .05% 1704 MHz
   : .06% 1968 MHz: .02% 2208 MHz: .00% 2400 MHz: .04
   % 2568 MHz: .01% 2724 MHz: .03% 2868 MHz: .00%
   2988 MHz: .00% 3096 MHz: 0% 3204 MHz: .02% 3324
   MHz: .00% 3408 MHz: .00% 3504 MHz: .03%)
162 CPU 6 frequency: 1343 MHz
163 CPU 6 idle residency: 99.52%
164 CPU 6 active residency: 0.48% (660 MHz: .13% 924
   MHz: .01% 1188 MHz: .22% 1452 MHz: .01% 1704 MHz
   : .02% 1968 MHz: .01% 2208 MHz: .01% 2400 MHz: .01
   % 2568 MHz: .01% 2724 MHz: .02% 2868 MHz: .00%
   2988 MHz: .00% 3096 MHz: 0% 3204 MHz: .01% 3324
   MHz: .01% 3408 MHz: .00% 3504 MHz: .01%)
165 CPU 7 frequency: 1638 MHz
166 CPU 7 idle residency: 99.83%
167 CPU 7 active residency: 0.17% (660 MHz: .03% 924
   MHz: 0% 1188 MHz: .01% 1452 MHz: .08% 1704 MHz
   : .01% 1968 MHz: .01% 2208 MHz: .00% 2400 MHz: .00

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167 % 2568 MHz: .00% 2724 MHz: .01% 2868 MHz: 0%
    2988 MHz: 0% 3096 MHz: 0% 3204 MHz: .00% 3324
    MHz: 0% 3408 MHz: .01% 3504 MHz: .01%)
168
169 System instructions retired: 1.41952e+09
170 System instructions per clock: 0.822545
171 CPU Power: 209 mW
172 GPU Power: 13 mW
173 ANE Power: 0 mW
174 Combined Power (CPU + GPU + ANE): 221 mW
175
176 **** GPU usage ****
177
178 GPU active frequency: 460 MHz
179 GPU active residency: 13.07% (444 MHz: 12% 612
    MHz: .26% 808 MHz: .21% 968 MHz: .16% 1110 MHz:
    0% 1236 MHz: 0% 1338 MHz: 0% 1398 MHz: 0%)
180 GPU requested frequency: (444 MHz: 13% 612 MHz: .
    05% 808 MHz: .38% 968 MHz: .01% 1110 MHz: 0%
    1236 MHz: 0% 1338 MHz: 0% 1398 MHz: 0%)
181 GPU idle residency: 86.93%
182 GPU Power: 13 mW
183
184
185
186 *** Sampled system activity (Sat Dec 2 14:11:55
    2023 +0100) (1021.30ms elapsed) ***
187
188 *** Running tasks ***
189
190 Name                      ID      CPU ms/s
    User%  Deadlines (<2 ms, 2-5 ms)  Wakeups (Intr
    , Pkg idle)  Energy Impact
191 VLC                         13068  248.63
    83.14  7.83   3.92                  62.67   0.98
    93.87
192 plugin-container            6970   406.01
    97.88  8.81   3.92                  52.88   1.96
    45.16
193 VTDecoderXPCService        13084  67.13
    31.32  10.77  0.00                 10.77   0.

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193	00		16.71			
194	coreaudiod			156	152.92	
	89.23	0.00	0.00		88.13	5.88
		16.60				
195	contextstored			150	20.42	
	80.96	0.00	0.00		0.00	0.
	00		16.48			
196	WindowServer			145	189.79	
	83.39	9.79	0.00		115.54	7.83
		13.65				
197	cfprefsd			146	6.77	
	29.17	0.00	0.00		0.00	0.
	00		9.89			
198	kernel_task			0	83.75	
	0.00	341.74	5.88		1048.72	99.
	88		6.92			
199	mediaremoted			84	24.38	
	78.34	0.00	0.00		0.00	0.
	00		6.34			
200	ContextStoreAgent			12217	8.70	
	82.08	0.00	0.00		0.00	0.
	00		5.24			
201	pycharm			12305	75.75	
	71.43	54.83	330.97		514.08	45.
	04		4.97			
202	powermetrics			13269	19.99	
	26.31	0.00	0.00		0.98	0.
	00		4.56			
203	com.apple.AppleUserHIDDrivers			320	59.94	
	54.55	0.00	0.00		0.00	0.
	00		4.41			
204	ControlCenter			404	19.96	
	84.80	0.00	0.00		0.00	0.
	00		4.02			
205	firefox			6874	30.93	
	57.74	0.00	0.00		62.67	1.
	96		3.85			
206	plugin-container			10644	35.44	
	91.66	6.85	8.81		68.54	5.
	88		3.67			
207	BiomeAgent			12218	1.86	

207	67.49	0.00	0.00	0.00	0.
00		2.36			
208	biomed			12243	1.83
	65.70	0.00	0.00	0.00	0.
00		2.35			
209	assistantd			12230	6.96
	76.80	0.00	0.00	0.00	0.
00		2.13			
210	CAResultingService			315	9.30
	58.53	0.00	0.00	0.00	0.
00		1.98			
211	homed			12237	3.08
	80.53	0.00	0.00	0.00	0.
00		0.87			
212	assistant_service			13054	2.59
	81.20	0.00	0.00	0.00	0.
00		0.80			
213	runningboardd			155	2.12
	61.10	0.00	0.00	0.98	0.
00		0.78			
214	WindowManager			400	3.48
	87.79	0.00	0.00	0.00	0.
00		0.74			
215	fontd			445	1.44
	84.51	0.00	0.00	0.00	0.
00		0.63			
216	mediaremoveagent			534	2.90
	81.83	0.00	0.00	0.00	0.
00		0.63			
217	logd			78	4.29
	49.40	0.00	0.00	0.00	0.
00		0.56			
218	opendirectoryd			116	2.00
	49.00	0.00	0.00	0.00	0.
00		0.52			
219	jcef Helper (GPU)			12644	4.68
	35.83	0.00	0.00	0.00	0.
00		0.49			
220	fsevents.d			83	3.03
	42.56	0.00	0.00	4.90	0.
98		0.49			

221	distnoted		380	1.93	
	84.85	0.00	0.00	0.00	0.
00		0.45			
222	locationd		124	1.65	
	65.82	0.00	0.00	0.00	0.
00		0.40			
223	PerfPowerServices		1917	2.11	
	62.23	0.00	0.00	0.00	0.
00		0.33			
224	distnoted		129	0.15	
	81.56	0.00	0.00	0.00	0.
00		0.32			
225	cfprefsd		381	0.31	
	58.48	0.00	0.00	0.00	0.
00		0.32			
226	plugin-container		6879	3.69	
	81.21	0.00	0.00	21.54	0.
98		0.30			
227	launchd		1	0.79	
	48.26	0.00	0.00	0.00	0.
00		0.30			
228	systemstats		366	1.20	
	57.91	0.00	0.00	0.00	0.
00		0.26			
229	ContinuityCaptureAgent		420	1.12	
	68.90	0.00	0.00	0.00	0.
00		0.26			
230	AirPlayXPCHelper		142	2.60	
	52.95	0.00	0.00	0.00	0.
00		0.25			
231	mds		105	1.19	
	52.81	0.00	0.00	1.96	0.
98		0.24			
232	plugin-container		10643	2.24	
	86.47	0.00	0.00	3.92	0.
00		0.23			
233	PowerChime		1894	2.17	
	58.67	0.00	0.00	0.00	0.
00		0.22			
234	com.apple.audio.Core-Audio-Drive		13171	0.97	
	57.61	0.00	0.00	0.98	0.

234	00	0.20			
235	corespeechd		486	2.30	
	57.38	0.00	0.00	0.00	0.
	00	0.18			
236	com.apple.AmbientDisplayAgent		1951	1.80	
	78.46	0.00	0.00	0.00	0.
	00	0.17			
237	loginwindow		148	1.74	
	47.94	0.00	0.00	0.00	0.
	00	0.16			
238	Python		12640	2.99	
	90.63	0.00	0.00	19.58	0.
	00	0.16			
239	notifyd		139	0.20	
	36.24	0.00	0.00	0.00	0.
	00	0.16			
240	mds_stores		314	0.70	
	42.85	0.00	0.00	0.00	0.
	00	0.15			
241	plugin-container		8569	2.01	
	87.00	0.00	0.00	4.90	0.
	00	0.11			
242	corebrightnessd		141	1.27	
	62.87	0.00	0.00	0.00	0.
	00	0.11			
243	avconferenced		537	1.62	
	44.24	0.00	0.00	0.00	0.
	00	0.10			
244	powerd		91	0.62	
	46.04	0.00	0.00	0.00	0.
	00	0.08			
245	fsnotifier		12636	0.17	
	35.49	0.00	0.00	0.00	0.
	00	0.06			
246	plugin-container		10613	0.53	
	86.78	0.00	0.00	1.96	0.
	00	0.05			
247	audioclocksyncd		293	0.45	
	62.77	0.00	0.00	0.00	0.
	00	0.03			
248	sharingd		477	0.36	

248	48.75	0.00	0.00	0.00	0.
00		0.02			
249	AssetCacheLocatorService			554	0.17
	14.89	0.00	0.00	0.98	0.
00		0.02			
250	plugin-container			6974	0.30
	83.07	0.00	0.00	1.96	0.
00		0.02			
251	plugin-container			6880	0.25
	79.65	0.00	0.00	1.96	0.
00		0.02			
252	airportd			158	0.29
	66.97	0.00	0.00	1.96	0.
00		0.02			
253	plugin-container			9547	0.27
	84.16	0.00	0.00	2.94	0.
00		0.02			
254	lockoutagent			397	0.11
	51.17	0.00	0.00	0.98	0.
00		0.01			
255	mDNSResponder			226	0.06
	31.11	0.98	0.00	1.96	0.
00		0.01			
256	thermalmonitord			115	0.15
	64.95	0.00	0.00	0.98	0.
00		0.01			
257	Python			13261	0.05
	21.88	0.00	0.00	0.00	0.
00		0.01			
258	Code Helper (Plugin)			5053	0.31
	87.70	1.96	0.00	3.92	0.
00		0.01			
259	Finder			406	0.17
	31.03	0.00	0.00	0.00	0.
00		0.01			
260	appleh13camerad			278	0.06
	32.83	0.00	0.00	0.98	0.
00		0.00			
261	mDNSResponderHelper			240	0.05
	49.60	0.00	0.00	0.98	0.
00		0.00			

262	ALL_TASKS	-2	1541.09
	76.78 443.55 353.47	2105.15	172.
33	277.43		
263			
264			
265	**** Battery and backlight usage ****		
266			
267			
268			
269	**** Network activity ****		
270			
271	out: 0.00 packets/s, 0.00 bytes/s		
272	in: 0.00 packets/s, 0.00 bytes/s		
273			
274			
275	**** Disk activity ****		
276			
277	read: 21.54 ops/s 372.98 KBytes/s		
278	write: 55.81 ops/s 276.73 KBytes/s		
279			
280	**** Interrupt distribution ****		
281			
282	CPU 0:		
283	Total IRQ: 3040.23 interrupts/sec		
284	-> IPI: 2109.07 interrupts/sec		
285	-> TIMER: 553.22 interrupts/sec		
286	CPU 1:		
287	Total IRQ: 2579.06 interrupts/sec		
288	-> IPI: 1986.68 interrupts/sec		
289	-> TIMER: 459.22 interrupts/sec		
290	CPU 2:		
291	Total IRQ: 2335.25 interrupts/sec		
292	-> IPI: 1821.20 interrupts/sec		
293	-> TIMER: 440.61 interrupts/sec		
294	CPU 3:		
295	Total IRQ: 2125.72 interrupts/sec		
296	-> IPI: 1725.25 interrupts/sec		
297	-> TIMER: 351.51 interrupts/sec		
298	CPU 4:		
299	Total IRQ: 516.99 interrupts/sec		
300	-> IPI: 410.26 interrupts/sec		

```
301      |-> TIMER: 84.21 interrupts/sec
302 CPU 5:
303      Total IRQ: 299.62 interrupts/sec
304      |-> IPI: 287.87 interrupts/sec
305      |-> TIMER: 9.79 interrupts/sec
306 CPU 6:
307      Total IRQ: 215.41 interrupts/sec
308      |-> IPI: 189.95 interrupts/sec
309      |-> TIMER: 10.77 interrupts/sec
310 CPU 7:
311      Total IRQ: 259.47 interrupts/sec
312      |-> IPI: 247.72 interrupts/sec
313      |-> TIMER: 11.75 interrupts/sec
314
315
316
317 **** Processor usage ****
318
319 E-Cluster HW active frequency: 1410 MHz
320 E-Cluster HW active residency: 76.17% (600 MHz
   : 0% 912 MHz: 45% 1284 MHz: 12% 1752 MHz: 21%
   % 2004 MHz: 11% 2256 MHz: 4.7% 2424 MHz: 6.2%)
321 E-Cluster idle residency: 23.83%
322 E-Cluster instructions retired: 1.62424e+09
323 E-Cluster instructions per clock: 0.785627
324 CPU 0 frequency: 1470 MHz
325 CPU 0 idle residency: 58.99%
326 CPU 0 active residency: 41.01% (600 MHz: 0% 912
   MHz: 17% 1284 MHz: 4.7% 1752 MHz: 9.4% 2004 MHz
   : 4.0% 2256 MHz: 2.2% 2424 MHz: 3.9%)
327 CPU 1 frequency: 1468 MHz
328 CPU 1 idle residency: 60.42%
329 CPU 1 active residency: 39.58% (600 MHz: 0% 912
   MHz: 16% 1284 MHz: 5.2% 1752 MHz: 9.7% 2004 MHz
   : 3.7% 2256 MHz: 2.1% 2424 MHz: 3.3%)
330 CPU 2 frequency: 1547 MHz
331 CPU 2 idle residency: 64.90%
332 CPU 2 active residency: 35.10% (600 MHz: 0% 912
   MHz: 12% 1284 MHz: 4.1% 1752 MHz: 7.4% 2004 MHz
   : 4.5% 2256 MHz: 3.0% 2424 MHz: 3.7%)
333 CPU 3 frequency: 1567 MHz
```

```
334 CPU 3 idle residency: 69.96%
335 CPU 3 active residency: 30.04% (600 MHz: 0% 912
MHz: 8.8% 1284 MHz: 4.4% 1752 MHz: 8.8% 2004 MHz
: 2.8% 2256 MHz: 1.9% 2424 MHz: 3.3%)
336
337 P-Cluster HW active frequency: 803 MHz
338 P-Cluster HW active residency: 10.38% (660 MHz:
85% 924 MHz: 1.3% 1188 MHz: 5.4% 1452 MHz: 2.0%
1704 MHz: 1.6% 1968 MHz: 1.3% 2208 MHz: 1.3% 2400
MHz: .47% 2568 MHz: .74% 2724 MHz: .96% 2868 MHz
: 0% 2988 MHz: 0% 3096 MHz: 0% 3204 MHz: .02
% 3324 MHz: 0% 3408 MHz: 0% 3504 MHz: 0%)
339 P-Cluster idle residency: 89.62%
340 P-Cluster instructions retired: 9.19764e+08
341 P-Cluster instructions per clock: 2.71706
342 CPU 4 frequency: 1673 MHz
343 CPU 4 idle residency: 91.92%
344 CPU 4 active residency: 8.08% (660 MHz: .30% 924
MHz: .33% 1188 MHz: 2.9% 1452 MHz: .88% 1704 MHz
: .80% 1968 MHz: .44% 2208 MHz: .73% 2400 MHz: .39
% 2568 MHz: .44% 2724 MHz: .82% 2868 MHz: 0%
2988 MHz: 0% 3096 MHz: 0% 3204 MHz: 0% 3324
MHz: 0% 3408 MHz: 0% 3504 MHz: .04%)
345 CPU 5 frequency: 1699 MHz
346 CPU 5 idle residency: 94.35%
347 CPU 5 active residency: 5.65% (660 MHz: .03% 924
MHz: .28% 1188 MHz: 2.0% 1452 MHz: .90% 1704 MHz
: .66% 1968 MHz: .13% 2208 MHz: .47% 2400 MHz: .16
% 2568 MHz: .14% 2724 MHz: .93% 2868 MHz: 0%
2988 MHz: 0% 3096 MHz: 0% 3204 MHz: 0% 3324
MHz: 0% 3408 MHz: 0% 3504 MHz: 0%)
348 CPU 6 frequency: 1769 MHz
349 CPU 6 idle residency: 94.94%
350 CPU 6 active residency: 5.06% (660 MHz: .06% 924
MHz: .01% 1188 MHz: 1.3% 1452 MHz: .81% 1704 MHz
: .79% 1968 MHz: .64% 2208 MHz: .38% 2400 MHz: .32
% 2568 MHz: .14% 2724 MHz: .57% 2868 MHz: 0%
2988 MHz: 0% 3096 MHz: 0% 3204 MHz: 0% 3324
MHz: 0% 3408 MHz: 0% 3504 MHz: 0%)
351 CPU 7 frequency: 1844 MHz
352 CPU 7 idle residency: 97.39%
```

```
353 CPU 7 active residency: 2.61% (660 MHz: .05% 924
    MHz: .00% 1188 MHz: .61% 1452 MHz: .40% 1704 MHz
    : .43% 1968 MHz: .10% 2208 MHz: .41% 2400 MHz: .04
    % 2568 MHz: .00% 2724 MHz: .56% 2868 MHz: 0%
    2988 MHz: 0% 3096 MHz: 0% 3204 MHz: 0% 3324
    MHz: 0% 3408 MHz: 0% 3504 MHz: 0%)

354

355 System instructions retired: 2.544e+09
356 System instructions per clock: 1.05738
357 CPU Power: 411 mW
358 GPU Power: 13 mW
359 ANE Power: 0 mW
360 Combined Power (CPU + GPU + ANE): 424 mW
361
362 **** GPU usage ****
363
364 GPU active frequency: 480 MHz
365 GPU active residency: 12.65% (444 MHz: 11% 612
    MHz: .38% 808 MHz: .96% 968 MHz: .09% 1110 MHz:
    0% 1236 MHz: 0% 1338 MHz: 0% 1398 MHz: 0%)
366 GPU requested frequency: (444 MHz: 11% 612 MHz: .
    17% 808 MHz: .96% 968 MHz: .14% 1110 MHz: 0%
    1236 MHz: 0% 1338 MHz: 0% 1398 MHz: 0%)
367 GPU idle residency: 87.35%
368 GPU Power: 13 mW
369
370
371
372 Process finished with exit code 0
373
```