```
Push and notify
void push_and_notify(T item)
   lock_guard lk{ _m };
    _q.push(std::move(item));
  _cv.notify_all();
```

```
sleep until there are new items to pop
void wait_and_pop(T& item)
  std::unique_lock<std::mutex> lk{ _m };
  _cv.wait(lk, [this]{ return !_q.empty(); });
  item = std::move(_q.front());
  _q.pop();
```

Signal events std::condition_variable _cv;







Signal events

std::condition_variable _cv;

Push and notify void push_and_notify(T item) { lock_guard lk{ _m }; _q.push(std::move(item)); } cv.notify_all(); }

sleep until there are new items to pop

```
void wait_and_pop(T& item)
{
   std::unique_lock<std::mutex> lk{ _m };
   _cv.wait(lk, [this]{ return !_q.empty(); });
   item = std::move(_q.front());
   _q.pop();
}
```

Processes: 284 total, 3 running, 5 stuck, 276 sleeping, 1340 threads

15:50:13

Load Avg: 1.52, 1.47, 1.48 CPU usage: 2.62% user, 3.10% sys, 94.27% idle SharedLibs: 1196K resident, 0B data, 0B linkedit.

MemRegions: 90613 total, 2434M resident, 65M private, 640M shared. PhysMem: 8119M used (1295M wired), 72M unused.

VM: 725G vsize, 1026M framework vsize, 8785612(0) swapins, 9281977(0) swapouts. Networks: packets: 26752134/33G in, 15542577/3924M out.

Disks: 2508267/95G read, 3057143/126G written.

PID	COMMAND	%CPl	J TIME	#TH	#WQ	#PORT	MEM	PURG	CMPRS	PGRP	PPID	STATE	BOOSTS
%CP	U_ME %CPU_OTHRS	UID	FAULTS										
266	31 a.out	0.0	00:00.00	5	0	14	368K	0B	0B	26631	25842	sleeping	*0[1]
0.0	00000 0.00000	501	344										
266	27 Python	0.0	00:01.64	32	0	53	35M	ØB	ØB	26627	26617	sleeping	*0[1]
0.0	00000 0.00000	501	33469										
266	17 Vim	0.0	00:01.12	31	0	71	22M	0B	0B	26617	5829	sleeping	*0[5]
0.0	00000 0.00000	501	13083										
265	95 QuickLookSa	t 0.0	00:00.36	2	0	41	11M	0B	0B	26595	1	sleeping	0[0]
0.0	00000 0.00000	501											