



**BRENT OZAR**  
UNLIMITED®

## Lab 3: Mixed Unknown Workload

2.3 p1

## Setting up for the lab

1. Restart the SQL Server service (clears stats)
2. Restore your StackOverflow database
3. Copy & run the Lab 3 setup script, will take 1-2 mins
4. Start SQLQueryStress:
  1. File Explorer, D:\Labs, run SQLQueryStress.exe
  2. Click File, Open, D:\Labs\ServerLab3.json
  3. Set "Number of Threads" based on your CPUs
  4. Click Go

2.3 p2





## We just found a wild SQL Server

Someone in accounting set up their own server

It's never been managed by a DBA before

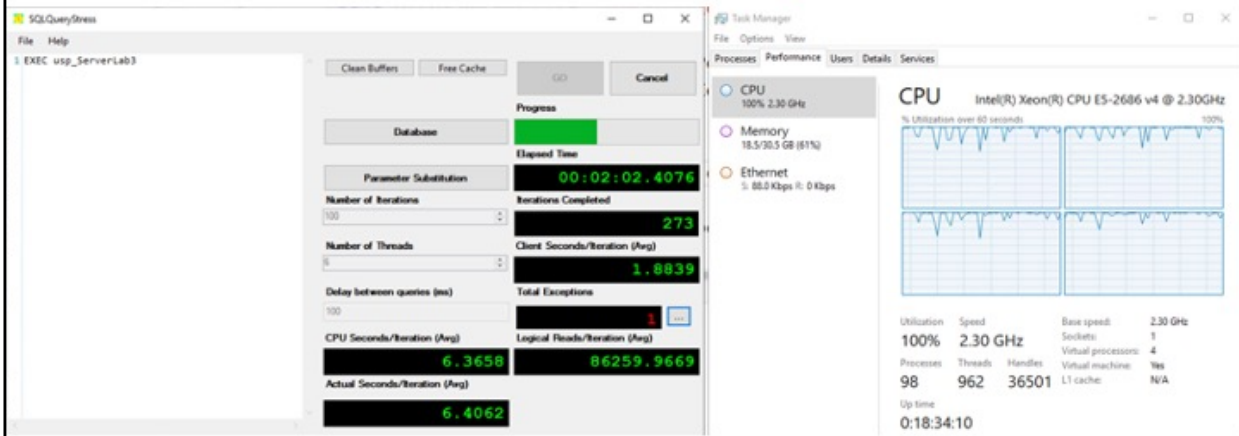
Users are complaining about performance,  
and gets especially bad from time to time

It's on a VM with only 20GB RAM,  
and max memory is set to 16GB:  
pretend you can't change that.

2.3 p4



## Load test takes minutes, 100% CPU



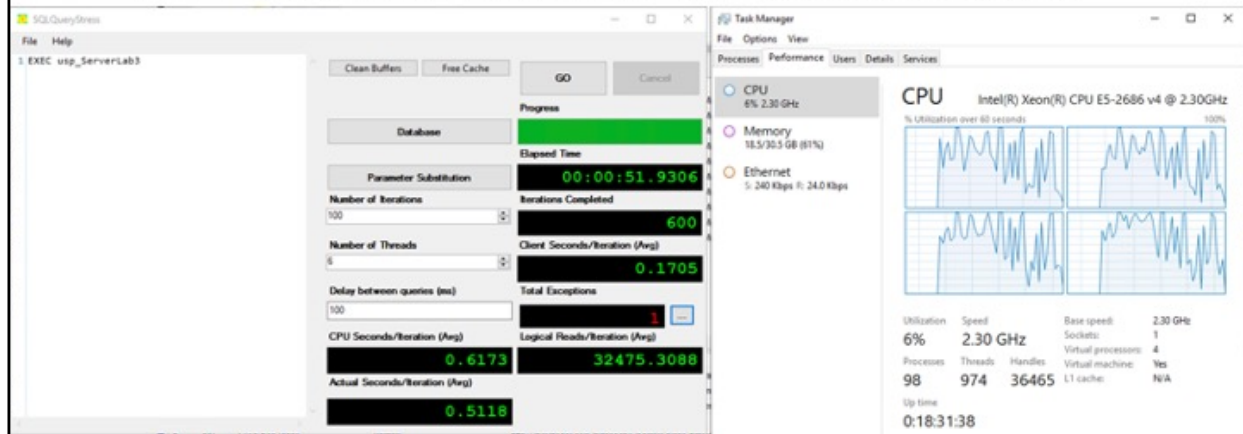
2.3 p5



## But with just one tweak...

It runs in ~1 minute, and has CPU headroom.

You don't have to do just one tweak. But you can try!



## How I'd budget this hour

**5 minutes: server review.** Run `sp_Blitz` for a quick health check, then `sp_BlitzFirst` to check your waits.

**25 minutes: mitigation round 1.** Stop the load test, and either focus on queries, OR indexes. Just pick one. Design the change you want to make, post it in Slack.

Make the change, start the load test again, repeat. Let me know in Slack if the workload ran faster.

Get stumped? `EXEC usp_ServerLab3_Clue`.

