



VTUNE[®] AMPLIFIER[™] HANDS-ON INSTRUCTIONS

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Login to RRZE System & Setup

- 1) `$ ssh -L <user> cshpc.rrze.fau.de`
- 2) `$ screen`
- 3) `$ ssh meggie`
- 4) `$ cp /home/hpc/k_m85q/m85q0066/vtune_labs.tar.gz .`
- 5) `$ tar -xzvf vtune_labs.tar.gz`
- 6) `$ cd vtune_labs`
- 7) `$ module load oneapi`
- 8) `$./compile.sh`

Run Benchmark & VTune on the Compute Node

- 1) `$ srun -N 1 -t 90 --reservation=PRACE-day3 -C hwperf --pty /bin/bash -l`
- 2) `$ module load oneapi`
- 3) `$ export OMP_PLACES=threads`
- 4) `$./stream.x` #get baseline performance
- 5) `$./stream_mod.x` #broken stream performance
- 6) `$ diff ./stream.c ./stream_mod.c` #no, that would be too easy
- 7) `$ vtune -c hotspots -r r_hs_mod -- ./stream_mod.x` #first VTune analysis
- 8) `$ vtune -c ...` #will be discussed in the presentation

Start VTune Backend Server & Connect

- 1) Open another screen terminal (CTRL & a + c) and navigate to vtune_labs
- 2) `$ source /home/woody/unrz/unrz139/inteloneapi/setvars.sh #no module`
- 3) `$ vtune-backend --web-port <UNIQUE PORT> --data-directory .`
- 4) Detach from screen (CTRL & a + d) & logout (exit)
- 5) Reconnect with Tunnel `ssh ... -L <UNIQUE PORT> :localhost: <UNIQUE PORT>`
- 6) `$ screen -x`
- 7) Copy server URL (Serving GUI at) into your browser → accept certificate
- 8) Go back to screen terminal 1 (CTRL & a + p) and continue to follow the presentation

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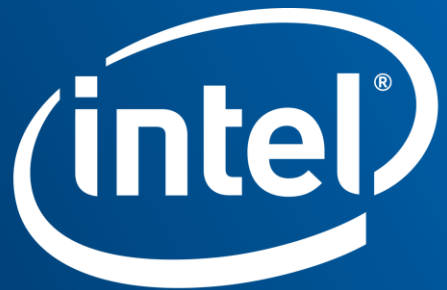
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