Optimize Performance with Intel® VTune™ Profiler

Heinrich Bockhorst

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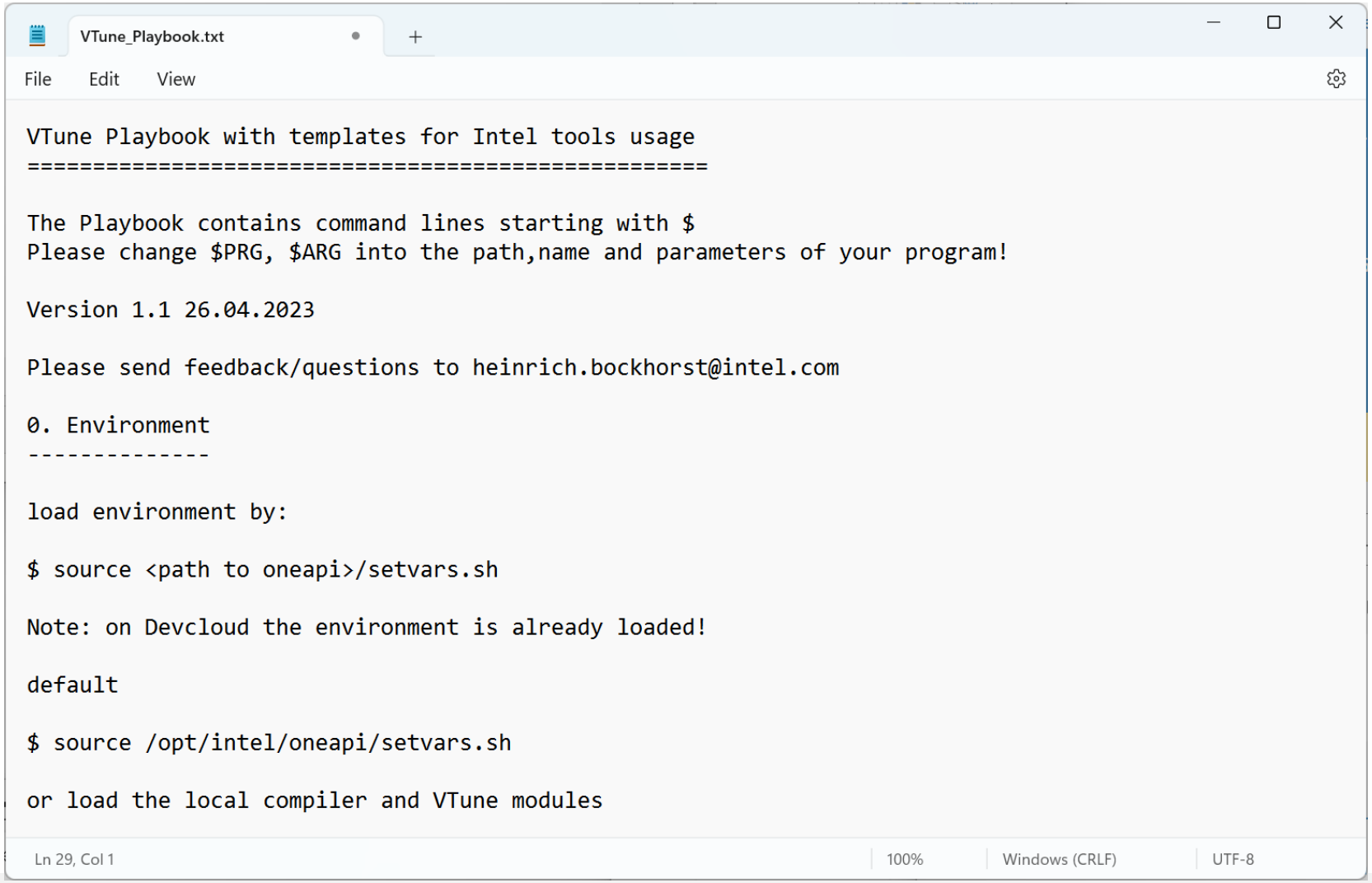
Agenda: VTune with CPU focus

Time Start	Duration [min]	Topic
9:00	00:15	Intro Workshop VTune based on APS results
9:15	00:30	How to use VTune on Durham systems (Demo)
9:45	00:45	VTune Hotspots
10:30	00:15	Break
10:45	00:30	HPC Performance including OpenMP
11:15	00:15	Memory analysis
11:30	00:30	VTune API usage
12:00		End of presentations

- Timings may be changed due to demos etc.
- More advanced analysis types may not work on AMD hardware
- PDFs will be provided in slack

Playbook for easy access to command lines



Demo slides/life

- Presentations contain sample snapshots
- Demo content might not match exactly these snapshots

Analysis based on APS results

- APS is first step in analysis.
- Check for hints provided in APS results
- APS provides only data on whole app
- VTune will provide function/loops/source code/assembly level analysis

More Resources

Intel® VTune™ Profiler – Performance Profiler

- Product page – overview, features, FAQs…
- Training materials – Cookbooks, User Guide, Processor Tuning Guides
- Support Forum
- Online Service Center - Secure Priority Support
- What's New?

Additional Analysis Tools

- Intel® Advisor – Design code for efficient vectorization, threading, memory usage, and accelerator offload
- Intel® Inspector – memory and thread checker/ debugger
- Intel® Trace Analyzer and Collector - MPI Analyzer and Profiler

Additional Development Products

- oneAPI: A new era of heterogenous computing

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