

Lecture No.2.2: Performance Analysis

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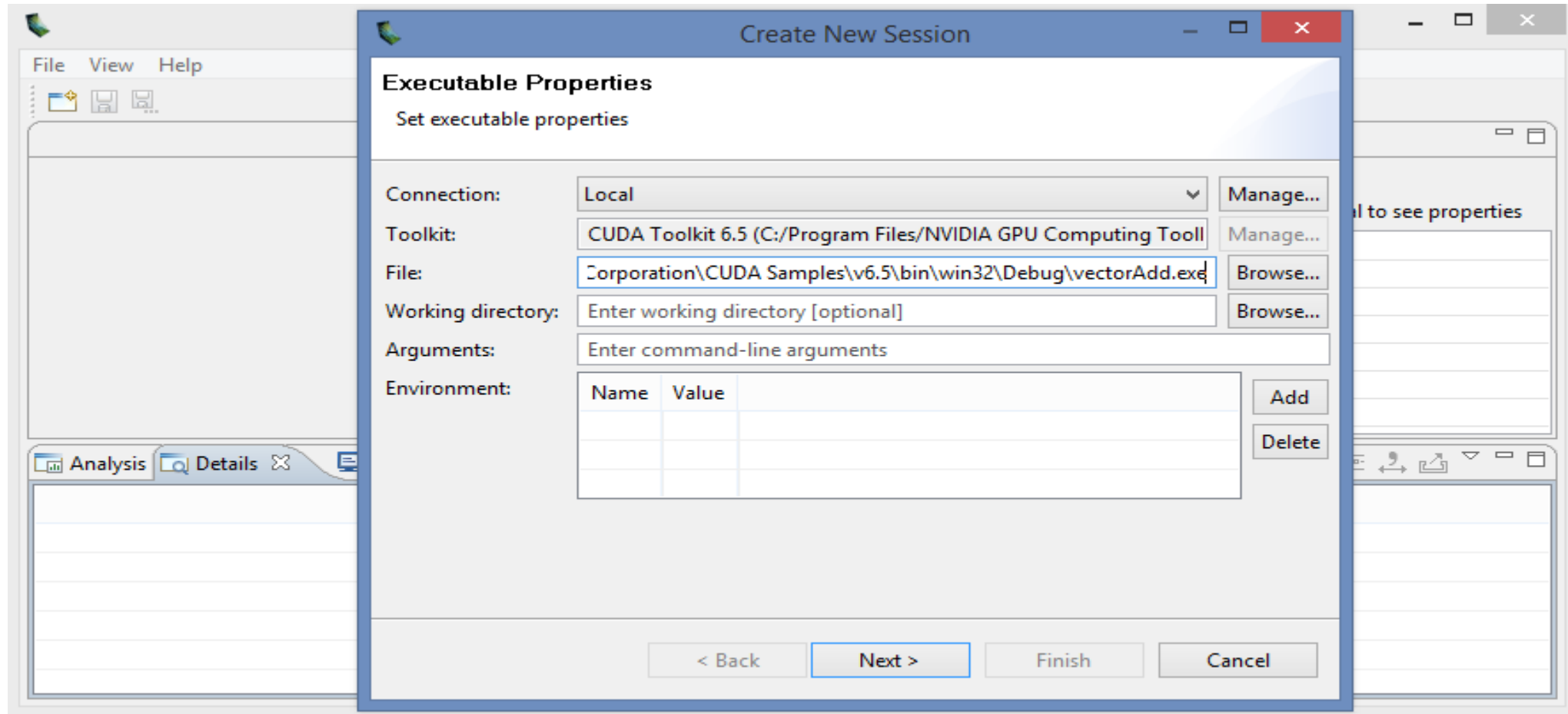
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Visual Profiler

- A profiling tool that displays a timeline of your application's CPU and GPU activity
- includes an automated analysis engine to identify optimization opportunities
- Provides useful information about the code executed on GPU architecture
 - Number of integer instructions
 - Number of FP instructions
 - Instructions-Per Cycle (IPC) rate
 - L1, L2 caches hit and miss rates
 - Multiprocessor activity
 - Memory throughput

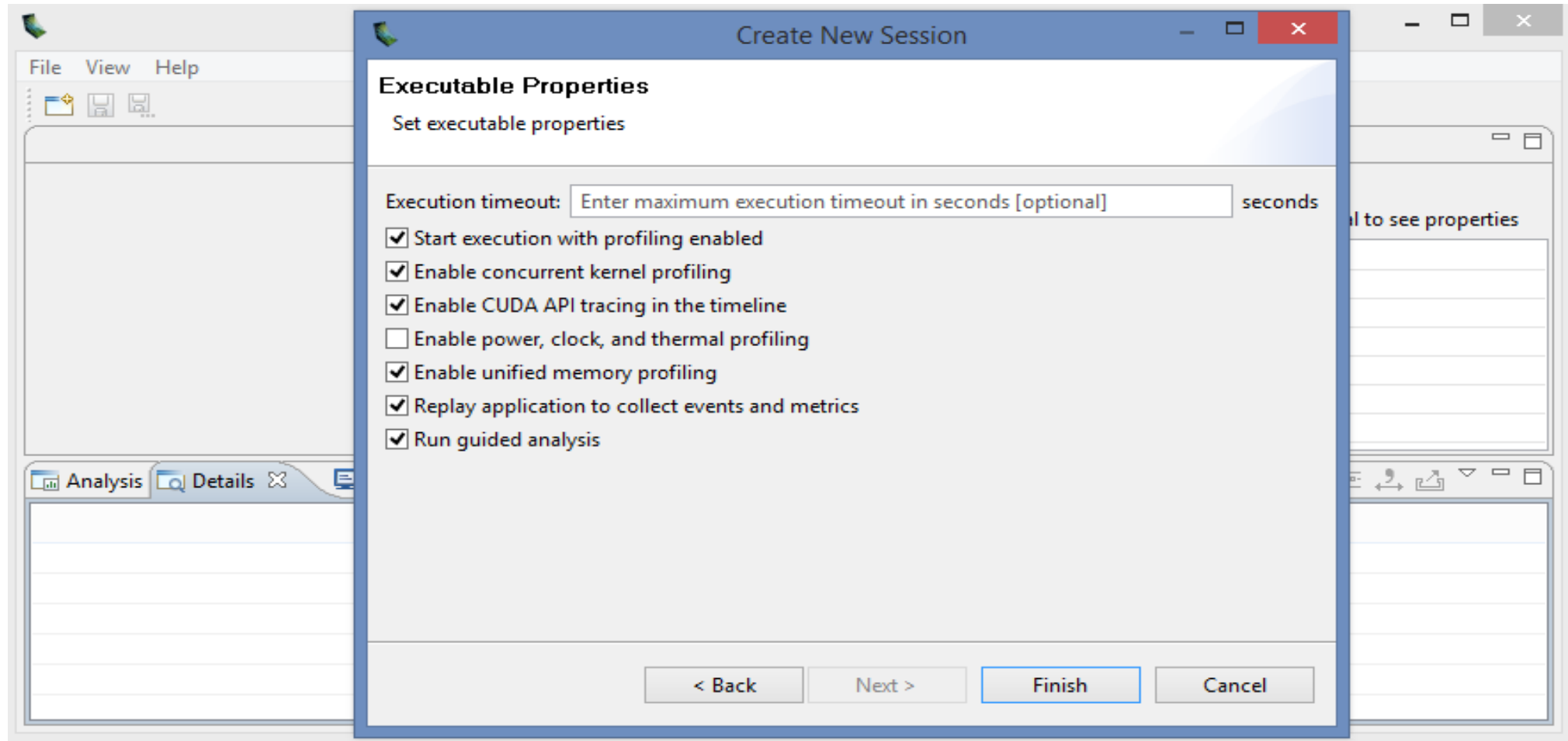
Visual Profiler (Cont.)

- Lets consider again the vector addition application

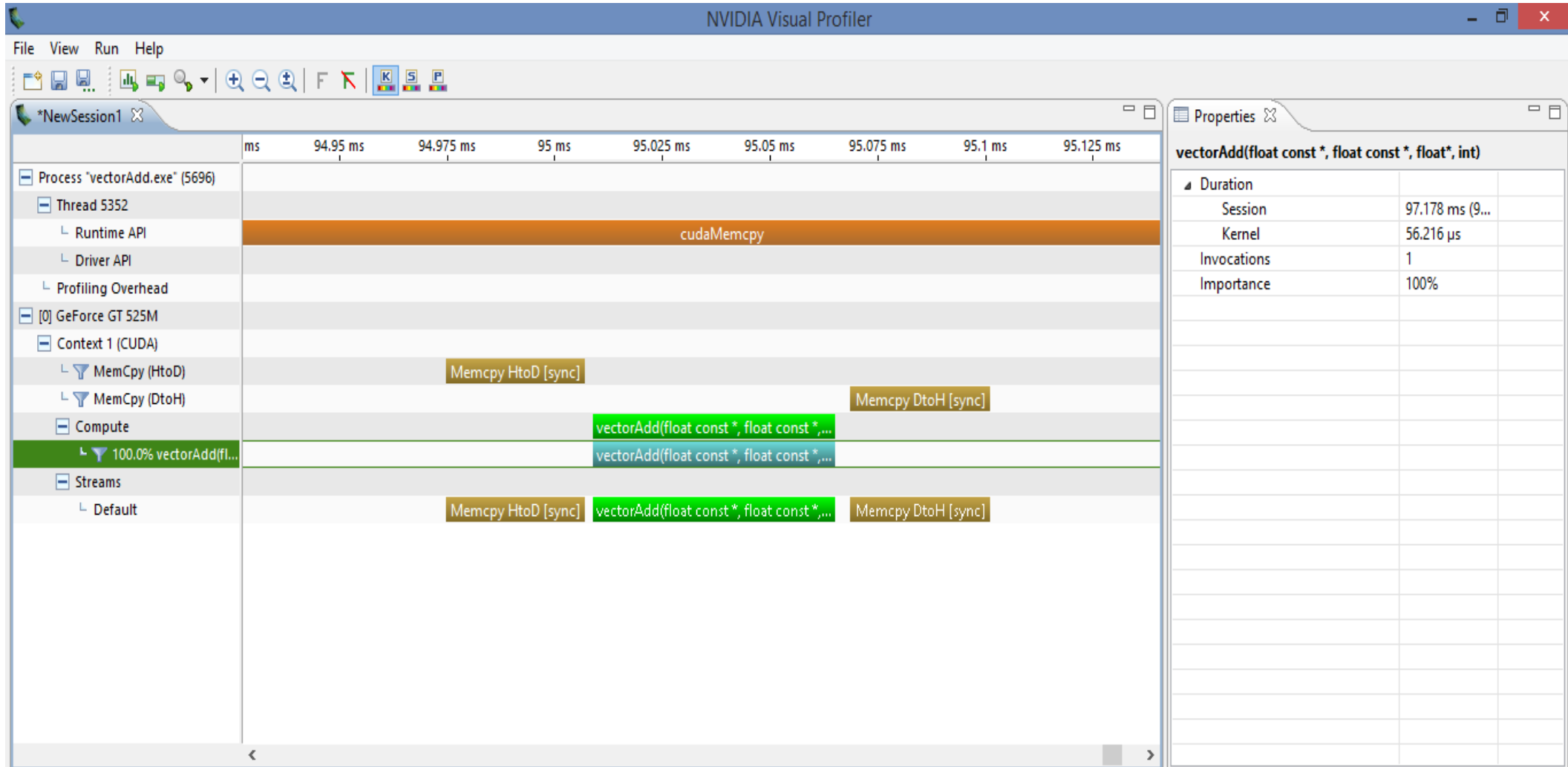


Visual Profiler (Cont.)

- Check the “replay application to collect events and metrics”



Vector Add – Profiling Timeline



Vector Add – Executed Instructions

- Select the executed IPC, FP instructions and Integer instructions

