TRAINING

v2023.3.1 | October 2023

User Manual

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Chapter 1. EXTERNAL RESOURCES

Forum

- DevTalk Nsight Compute Forum

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Code Examples

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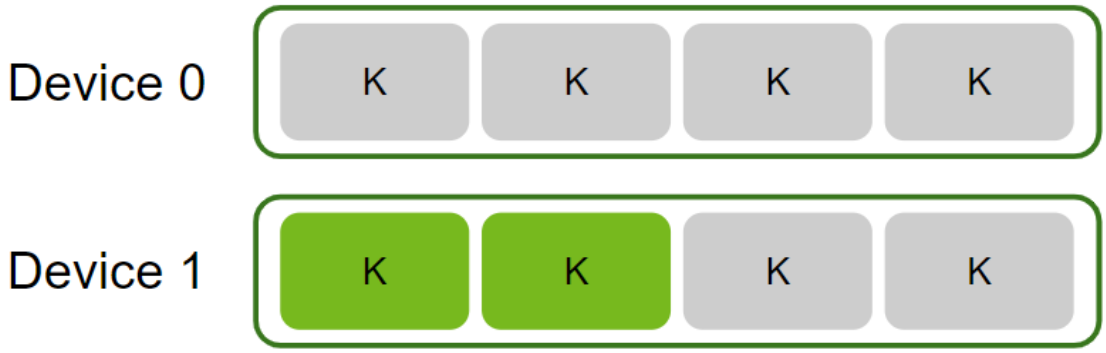
Chapter 2.
USAGE EXAMPLES

2.1. Filter Options

Note that examples will use the term *workload* to refer to either kernels, graphs, ranges or cmdlists unless stated otherwise.

1. **Profile first two workloads**

   `--launch-count 2`
2. **Profile first two workloads launched on device with device ID 1**



   `--device 1 --launch-count 2`
3. **Profile 2nd workload on each gpu**


```
--launch-skip 1 --launch-count 1 --filter-mode per-gpu
```

4. **Skip first 2 workloads of each launch configuration before profiling**

```
--launch-skip 2 --filter-mode per-launch-config
```

5. **Profile "Bar" kernel**


```
--kernel-name Bar
```

6. **Profile kernels which have "Bar" in function name**


```
--kernel-name regex:Bar
```

7. **Profile only 2nd invocation of kernel "Foo"**


```
--kernel-id ::Foo:2
```

8. **Profile only 2nd invocation of all kernels which have "Bar" in name**


```
--kernel-id ::regex:Bar:2
```

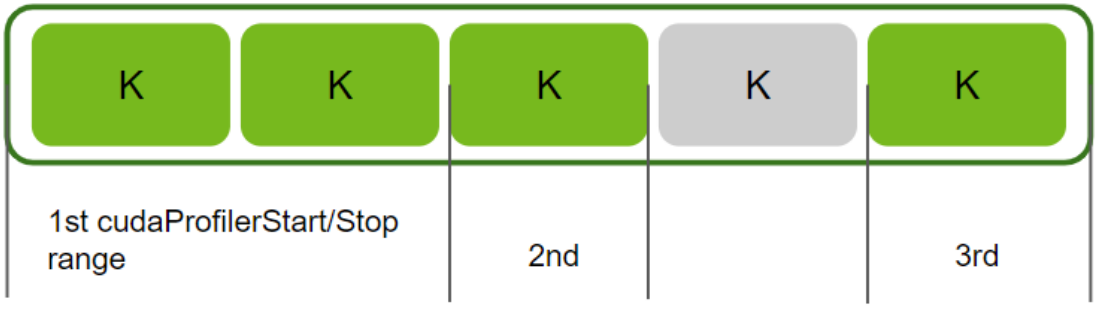
9. **Skip first 2 workloads before matching "Foo" or "Bar" in kernel names**


```
--launch-skip-before-match 2 --kernel-name regex:"Foo|Bar"
```

10. **Profile all 7th kernel invocations with mangled name "_FooBar" on CUDA context ID 1 and stream ID 2**

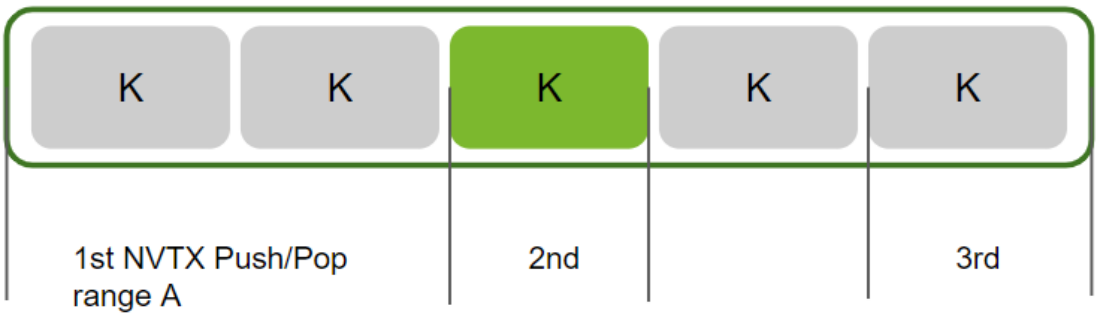
```
--kernel-id 1:2:_Foobar:7 --kernel-name-base mangled
```

11. **Profile all workloads launched in first 3 cu(da)ProfilerStart/Stop APIs created ranges**



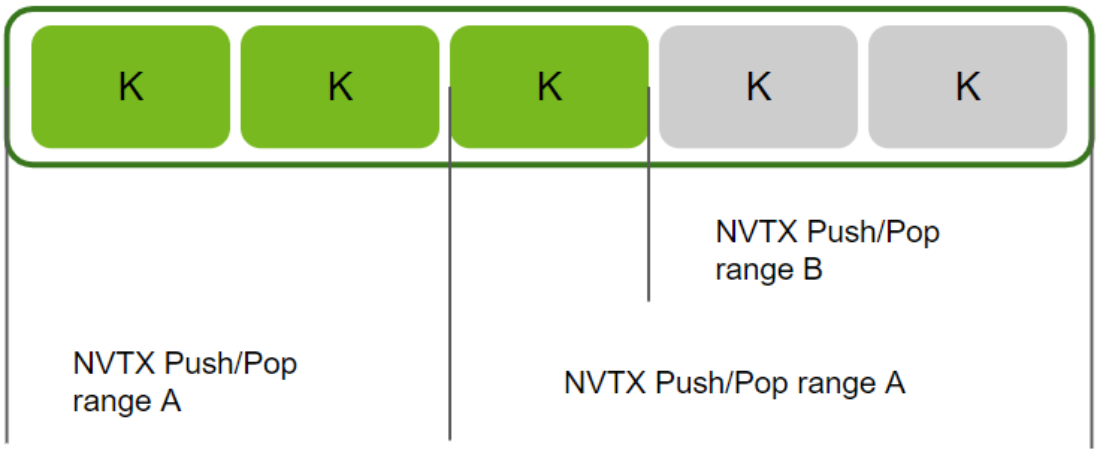

```
--range-filter :[1-3]:
```

12. **Profile all workloads launched in 2nd NVTX Push/Pop range A**



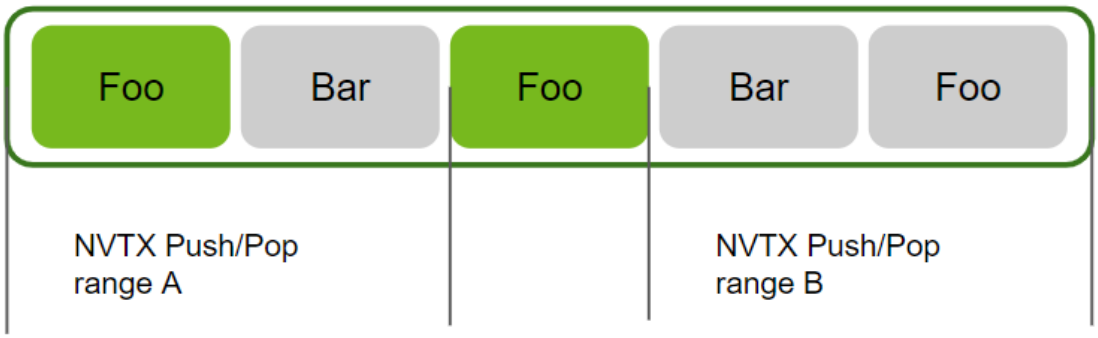
```
--range-filters ::2 --nvtx --nvtx-include A/
```

13. **Profile all workloads launched in NVTX Push/Pop range A except the ones in NVTX Push/Pop range B**



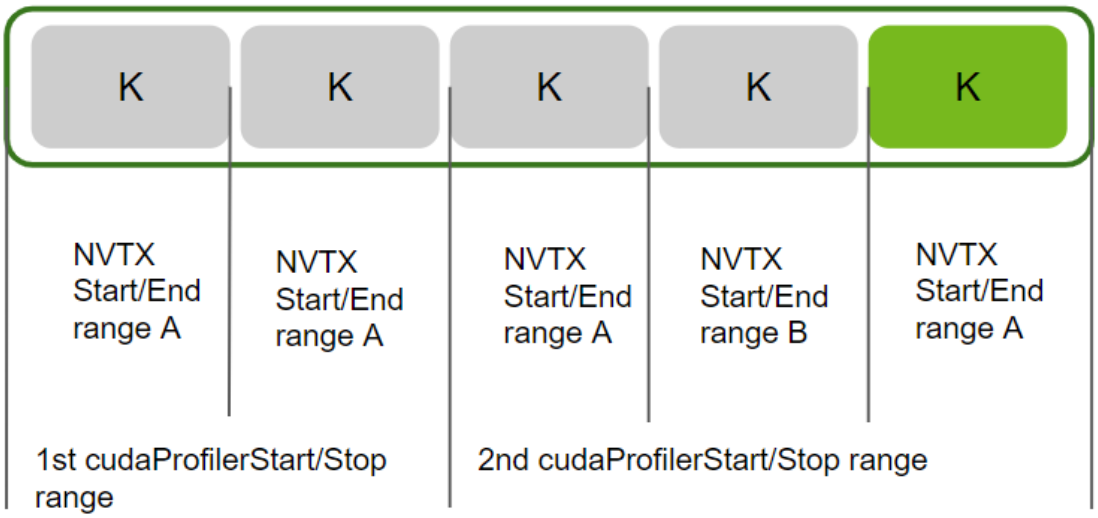

```
--nvtx --nvtx-include A/ --nvtx-exclude B/
```

14. **Profile all "Foo" kernels except those launched in NVTX Push/Pop range B**



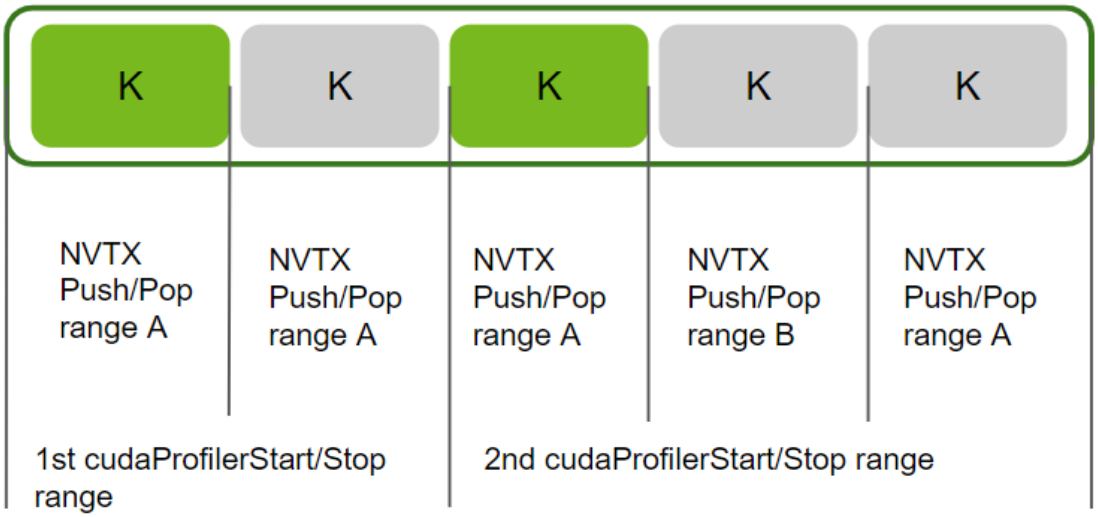

```
--nvtx --nvtx-exclude B/ --kernel-name Foo
```

15. **Profile all workloads launched in 2nd NVTX Start/End range A inside 2nd cu(da)ProfilerStart/Stop APIs created range**




```
--range-filter yes:2:2 --nvtx --nvtx-include A
```

16. **Profile all workloads launched in 1st NVTX Push/Pop range A inside both 1st and 2nd cu(da)ProfilerStart/Stop APIs created range**




```
--range-filter yes:[1-2]:1 --nvtx --nvtx-include A/
```

17. **Profile all workloads launched in 1st cu(da)ProfilerStart/Stop APIs created range with 2nd NVTX push/pop range A and domain D**

```
--range-filter no:1:2 --nvtx --nvtx-include D@A/
```

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