

LTTng-tools - Feature #555

add-context --help lists perf fields even when the machine has no generic registers at all

05/31/2013 02:13 PM - Daniel U. Thibault

Status:	Confirmed	Start date:	05/31/2013
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:	Wishlist		

Description

This was taken from a machine running 3.2.0-40-virtual:

```
$ lttng add-context --help
usage: lttng add-context -t TYPE [-k|-u] [OPTIONS]
[...]
Context:
  -t, --type TYPE          Context type. You can repeat that option on
                          the command line to specify multiple contexts at once.
                          (--kernel preempts --userspace)
                          TYPE can be one of the strings below:
                          pid, procname, prio, nice, vpid, tid, pthread_id,
                          vtid, ppid, vppid, hostname, perf:cpu-cycles,
                          perf:cycles, perf:stalled-cycles-frontend,
                          perf:idle-cycles-frontend,
                          perf:stalled-cycles-backend,
                          perf:idle-cycles-backend, perf:instructions,
                          perf:cache-references, perf:cache-misses,
                          perf:branch-instructions, perf:branches,
                          perf:branch-misses, perf:bus-cycles,
                          perf:L1-dcache-loads, perf:L1-dcache-load-misses,
                          perf:L1-dcache-stores,
                          perf:L1-dcache-store-misses,
                          perf:L1-dcache-prefetches,
                          perf:L1-dcache-prefetch-misses,
                          perf:L1-icache-loads, perf:L1-icache-load-misses,
                          perf:L1-icache-stores,
                          perf:L1-icache-store-misses,
                          perf:L1-icache-prefetches,
                          perf:L1-icache-prefetch-misses, perf:LLC-loads,
                          perf:LLC-load-misses, perf:LLC-stores,
                          perf:LLC-store-misses, perf:LLC-prefetches,
                          perf:LLC-prefetch-misses, perf:dTLB-loads,
                          perf:dTLB-load-misses, perf:dTLB-stores,
                          perf:dTLB-store-misses, perf:dTLB-prefetches,
                          perf:dTLB-prefetch-misses, perf:iTLB-loads,
                          perf:iTLB-load-misses, perf:branch-loads,
                          perf:branch-load-misses, perf:cpu-clock,
                          perf:task-clock, perf:page-fault, perf:faults,
                          perf:major-faults, perf:minor-faults,
                          perf:context-switches, perf:cs,
                          perf:cpu-migrations, perf:migrations,
                          perf:alignment-faults, perf:emulation-faults
```

Example:

```
[...]
$ dmesg | grep "generic register"
$
```

Trying to add-context -t perf:* on such a machine fails, of course.

It would be a simple yet useful enhancement to forgo listing perf context types when none are actually possible.

History

#1 - 05/31/2013 02:20 PM - Christian Babeux

- *Tracker changed from Bug to Feature*

#2 - 06/02/2013 11:06 AM - David Goulet

- *Status changed from New to Confirmed*

#3 - 05/20/2014 11:26 AM - Christian Babeux

- *Assignee set to Julien Desfossez*

We should investigate the APIs that perf provides for listing available PMUs (/proc ? debugfs?).

#4 - 09/01/2015 02:40 PM - Jérémie Galarneau

- *Target version set to Wishlist*

#5 - 09/01/2015 02:40 PM - Jérémie Galarneau

- *Assignee deleted (Julien Desfossez)*