

## LTTng-tools - Feature #566

### User-space data buffering schemes and the lttng user interface

06/20/2013 04:40 PM - Daniel U. Thibault

<b>Status:</b>	Confirmed	<b>Start date:</b>	06/20/2013
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	Wishlist		

#### Description

Here is a typical log with the current almost-2.2.0-rc3 version of lttng:

```
$ sudo -H lttng create uid -U net://131.132.32.77
Spawning a session daemon
Session uid created.
Traces will be written in net://131.132.32.77
$ sudo -H lttng enable-channel --buffers-uid -u canaluid
UST channel canaluid enabled for session uid
$ sudo -H lttng enable-event -u -a
Error: Events: Buffer type mismatch for session (channel channel0, session uid)
$ sudo -H lttng enable-event -u -a -c canaluid
All UST events are enabled in channel canaluid
$ sudo -H lttng start
Tracing started for session uid
$ sudo -H lttng destroy
```

Once enable-channel --buffers-uid is issued, it is understood the entire user-space domain will be using per-uid buffers. (This may change with later incarnations of lttng, I presume? Are there plans to allow per-channel control of the buffering schemes?)

The following enable-event -u command tries to create the default channel (channel0) because the user did not specify -c...But why does it try to create that channel using --buffers-pid? The session daemon *knows* that the user-space channels are now per-uid.

Resolution: The session daemon should switch the channel buffering scheme default of each session to per-uid whenever this is established by the user's first enable-channel or enable-event command. In other words, --buffers-pid should be the default only when the first enable-channel is issued (implicitly or explicitly).

It would also be appreciated if a user message were issued when that decision (per-pid vs. per-uid) is taken. Thus our previous session would become:

```
$ sudo -H lttng create uid -U net://131.132.32.77
Spawning a session daemon
Session uid created.
Traces will be written in net://131.132.32.77
$ sudo -H lttng enable-channel --buffers-uid -u canaluid
UST channel canaluid enabled for session uid
UST buffering is per UID
$ sudo -H lttng enable-event -u -a
All UST events are enabled in channel channel0
$ sudo -H lttng start
Tracing started for session uid
$ sudo -H lttng destroy
```

#### History

##### #1 - 01/07/2014 03:21 PM - David Goulet

- Status changed from New to Confirmed
- Target version deleted (2.2)

##### #2 - 09/01/2015 02:37 PM - Jérémie Galarneau

- Target version set to Wishlist