



ANALYZING ALL KINDS OF TRACES WITH THE TMF VIEWER

PLAN

- › What is TMF, brief overview
- › Recent features
- › Coming soon
- › Questions

TRACING AND MONITORING FRAMEWORK

- › Open-source (EPL) framework to implement trace analyzers
 - Generic interfaces, classes, views

- › Reference views for:
 - LTTng kernel and UST traces
 - GDB traces
 - Custom text or XML logs

- › Can be used as Eclipse plugins, or as a stand-alone application (RCP)

TRACING AND MONITORING FRAMEWORK

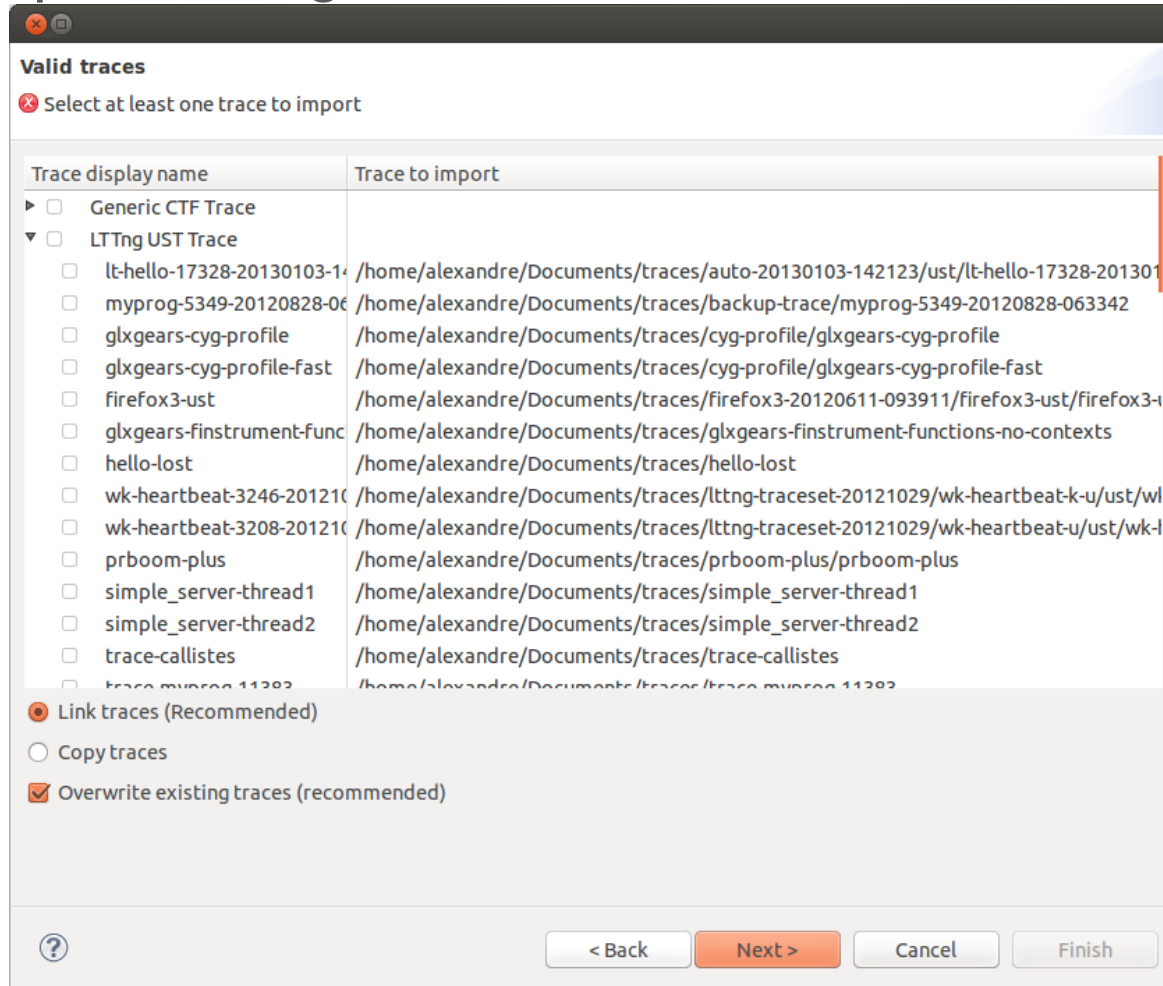
Quick demo

RECENT FEATURES

- › RCP (Rich Client Platform) edition
 - Stand-alone, “real” application. No need for the Eclipse IDE.
 - Smaller download
 - MUCH easier setup
 - Starts faster
 - Extensible
 - File → Open !

RECENT FEATURES

› Batch Import Dialog



RECENT FEATURES

- › Generic Callstack View
 - Support for Ittng-ust-cyg-profile traces

LTTNG-UST-CYG-PROFILE HOWTO

- › Recompile your program with `-finstrument-functions`
- › `lttng create`
- › `lttng enable-event -a -u`
- › `lttng add-context -t vtid -t procname`
- › `lttng start`
- › `LD_PRELOAD=liblttng-ust-cyg-profile.so ./myprogram`
- › `lttng stop`
- › `lttng destroy`

LTTNG-UST-CYG-PROFILE HOWTO

Control Flow Resources Statistics **Call Stack** State System Explorer

Function	Depth	Entry time	Exit time	Duration	18:01:03.932210	18:01:03.932220
glxgears-16073 (glxgears)						
main	1	18:01:03.596 911	18:01:14.207 792	010.610 880 90		
event_loop	2	18:01:03.804 884	18:01:14.207 792	010.402 907 90		
draw_frame	3	18:01:03.932 219	18:01:03.938 840	000.006 621 00	handle_event	draw_frame
draw_gears	4	18:01:03.932 221	18:01:03.932 357	000.000 135 50	reshape	draw_gears
draw	5	18:01:03.932 222	18:01:03.932 356	000.000 133 60		draw

glxgears-cyg-profile

Timestamp	Source	Type	File	Content
<srch>	<srch>	<srch>	<srch>	<srch>
18:01:03.932 220 622	3	lttng_ust_cyg_profile:func_entry	channel0_3	addr=0x401aac, call_site=0x403786, context._procname=glxgears, context._vtid=16073
18:01:03.932 221 268	3	lttng_ust_cyg_profile:func_exit	channel0_3	addr=0x401aac, call_site=0x403786, context._procname=glxgears, context._vtid=16073
18:01:03.932 221 856	3	lttng_ust_cyg_profile:func_entry	channel0_3	addr=0x40357a, call_site=0x403841, context._procname=glxgears, context._vtid=16073
18:01:03.932 222 419	3	lttng_ust_cyg_profile:func_entry	channel0_3	addr=0x4033a7, call_site=0x40374d, context._procname=glxgears, context._vtid=16073
18:01:03.932 356 090	3	lttng_ust_cyg_profile:func_exit	channel0_3	addr=0x4033a7, call_site=0x40374d, context._procname=glxgears, context._vtid=16073
18:01:03.932 357 453	3	lttng_ust_cyg_profile:func_exit	channel0_3	addr=0x40357a, call_site=0x403841, context._procname=glxgears, context._vtid=16073
18:01:03.938 840 996	2	lttng_ust_cyg_profile:func_exit	channel0_2	addr=0x403760, call_site=0x4046b3, context._procname=glxgears, context._vtid=16073

OTHER RECENT FEATURES

- › Trace synchronization infrastructure
 - Support for synchronizing LTTng kernel traces with network events
 - Plan to add a manual linear offset

- › Index on disk
 - Much faster to re-open existing traces

COMING SOON

- › Generic SWTChart views
 - Bar charts, XY plot, Pie charts(!)
 - New Histogram, much faster

- › Data-driven state system providers
 - Define states in XML
 - Eventually, data-driven views

REFERENCES

- › <http://lttng.org/eclipse>
- › http://wiki.eclipse.org/index.php/Linux_Tools_Project/LTTng2/User_Guide

- › Mailing list
 - linuxtools-dev@eclipse.org

- › IRC
 - #lttng on OFTC
 - #eclipse-linux on Freenode

QUESTIONS?
