

IMPROVING THE SOFTWARE ERGONOMY OF TMF

Introduction

- I. METHODOLOGY
- II. DATA GATHERING
- III. ANALYSIS
- IV. PROPOSALS
- V. CONCLUSION



I. METHODOLOGY

4 majors steps :

- ✓ Discovery of the tool
 - Goals,
 - Features,
 - Target Users.
- ✓ Collect data from the users,
- ✓ Analyse this data
 - to identify focus points,
- ✓ Propose solutions.



II. DATA GATHERING

How to collect data ?

Data collected in 3 different ways :

- ✓ Analysis of the software,
- ✓ User feedback,
- ✓ User observation.



II. DATA GATHERING

Analysis of the software :

- Bastien & Scapin criteria,
Set of 8 theme to structure the analysis
- Personnas & Cognitive walkthrough.

Simulation to anticipate user's difficulties



II. DATA GATHERING

User Feedback :

- Questionnaire,

<https://docs.google.com/forms/d/1062AXpphKCWSQtzkgqWB65iJG5I4rzkNHuLYzzPBgpU/viewform>

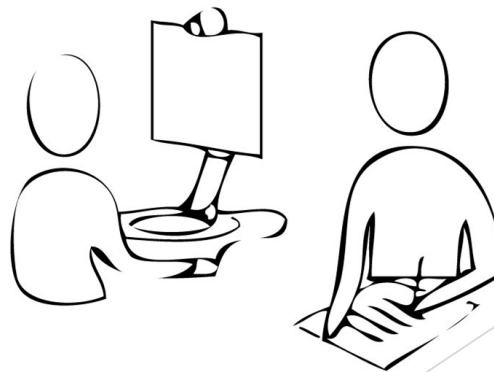
- Interview.



II. DATA GATHERING

Users observations:

- Students
From a kernel tutorial class,
- Professionals
CIENA's employees.



III. ANALYSIS

- Limited quantity of data.
- + Good diversity of users and/or usecases,
- + Similarities in data collected.

Similarities -> Points to focus in priority



III. ANALYSIS

- First use is difficult and with not enough guidance,
- Difficulties in manipulation
 - Mistakes,
 - Needlessly long manipulations.
- Lack of visual feedback.



III. PROPOSALS

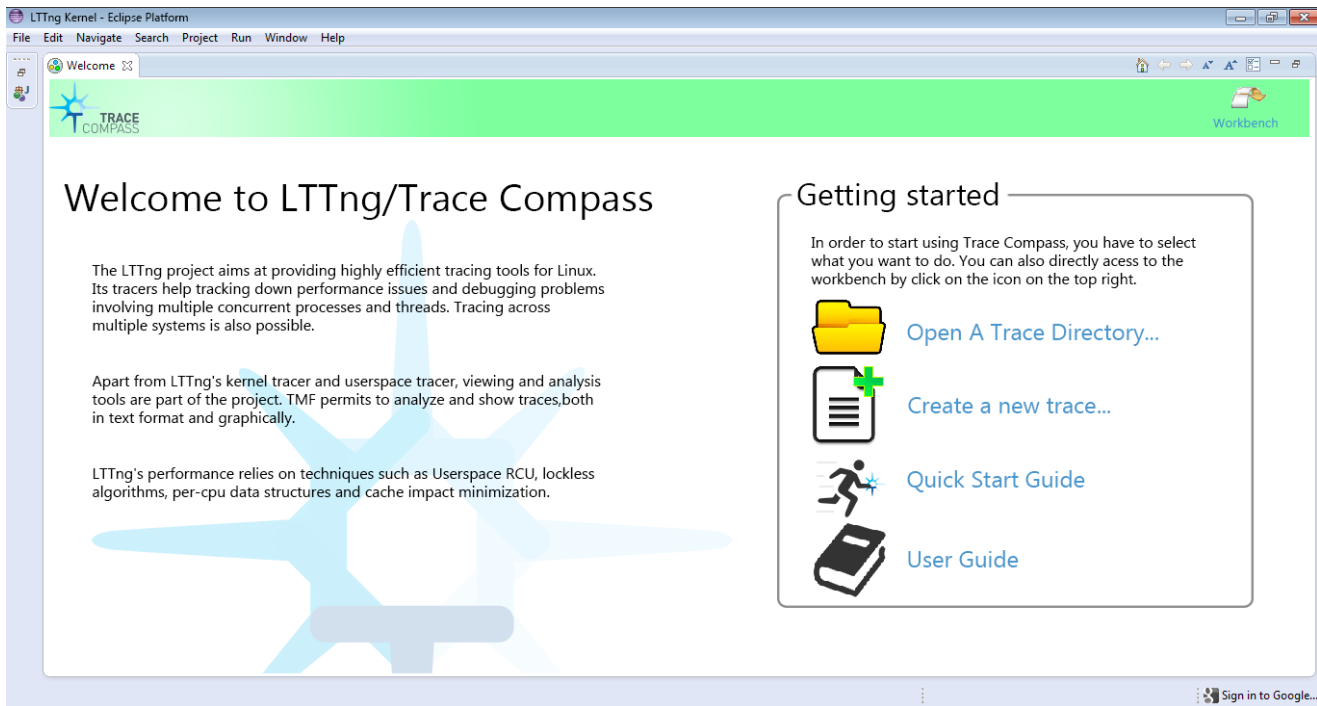
The Welcome tab :

- What the software can do and how to do it,
 - Majors features,
- Guide new users during their first uses,
 - Create a new trace &/or analysis,
 - Open an existing trace.



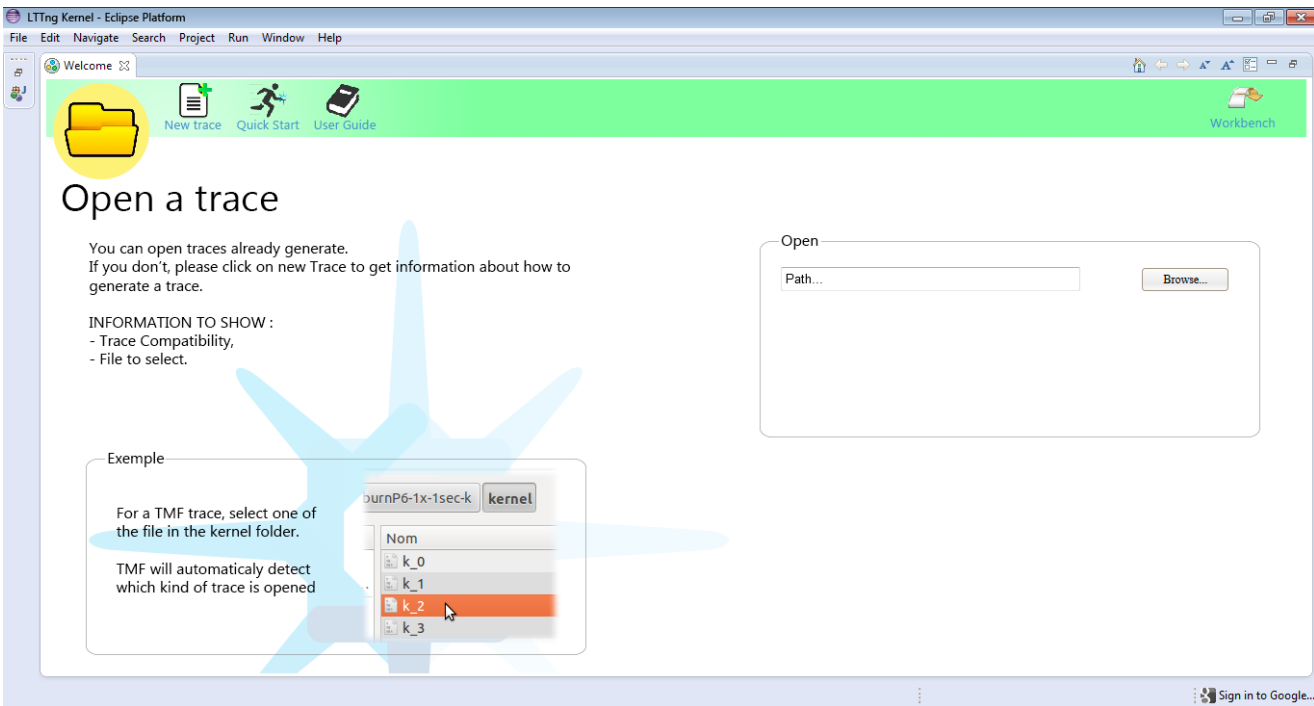
III. PROPOSALS

The Welcome tab mock-up (not completed)



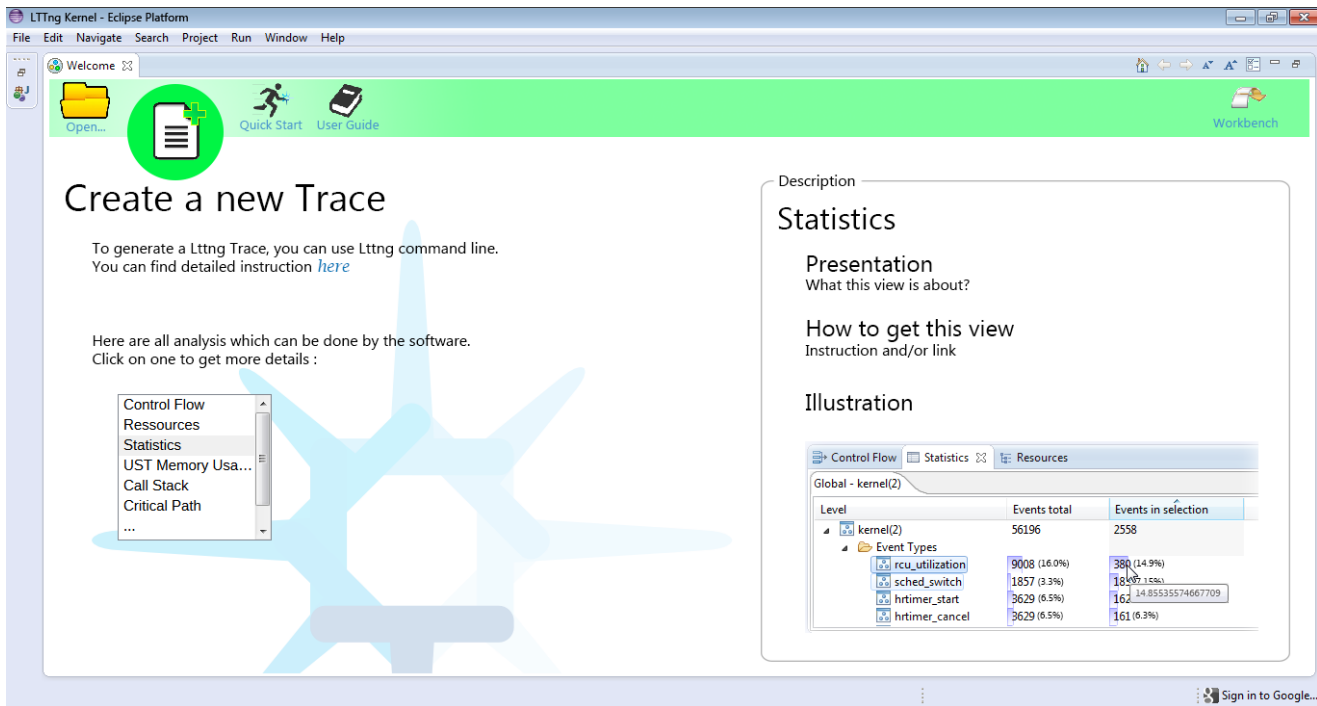
III. PROPOSALS

The Welcome tab mock-up (not completed)



III. PROPOSALS

The Welcome tab mock-up (not completed)



Global - kernel(2)

Level	Events total	Events in selection
kernel(2)	56196	2558
Event Types		
rcu_utilization	9008 (16.0%)	380 (14.9%)
sched_switch	1857 (3.3%)	185 (7.1%)
hrtimer_start	3629 (6.5%)	161 (6.3%)
hrtimer_cancel	3629 (6.5%)	161 (6.3%)



III. PROPOSALS

- Modification in the controls
 - For the selection,
 - For the navigation.

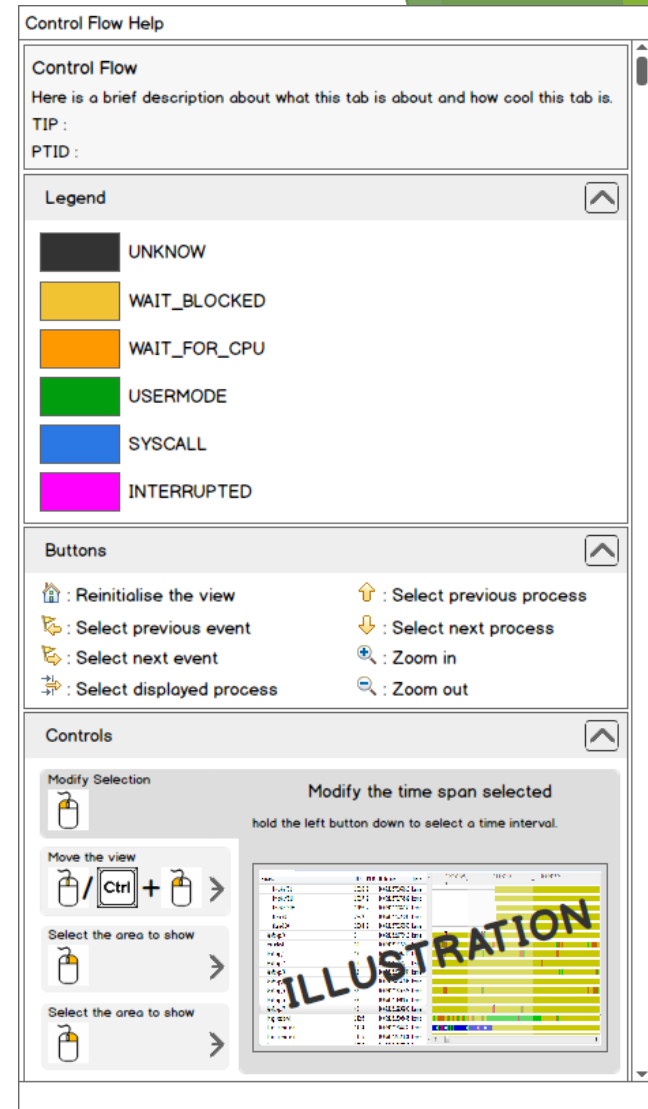
Selection

Start	End
< ->	< ->
T1 : 10:09:06.305 924 668	
T2 : 10:09:06.315 798 723	
DT : 000.012 090 680	
Event(s) : 334 (Details...)	



III. PROPOSALS

- Bring information to the user
 - Tab specific controls,
 - Tab specific functionalities,



III. PROPOSALS

Add Feedback :

- When a view is updated,
- Which analysis is available and why,
- Why the view cannot be generated,
- If there are lost events...



III. CONCLUSION

TMF is a powerful tool

Need modifications :

- To improve the experience,
- To improve the users' efficiency,
- To attract more user.



Thank you for your attention.

QUESTION ?

