Trace Management and Analysis with Framesoc

hand on tutorial + demo

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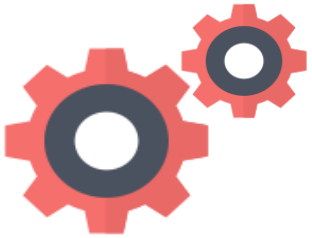
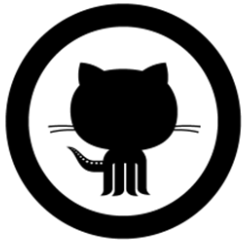
Inria Bordeaux Seminary, 27/02/2015

Agenda



Getting Started

Trace Analysis



Distribution

Perspectives

Getting Started

Installation in short

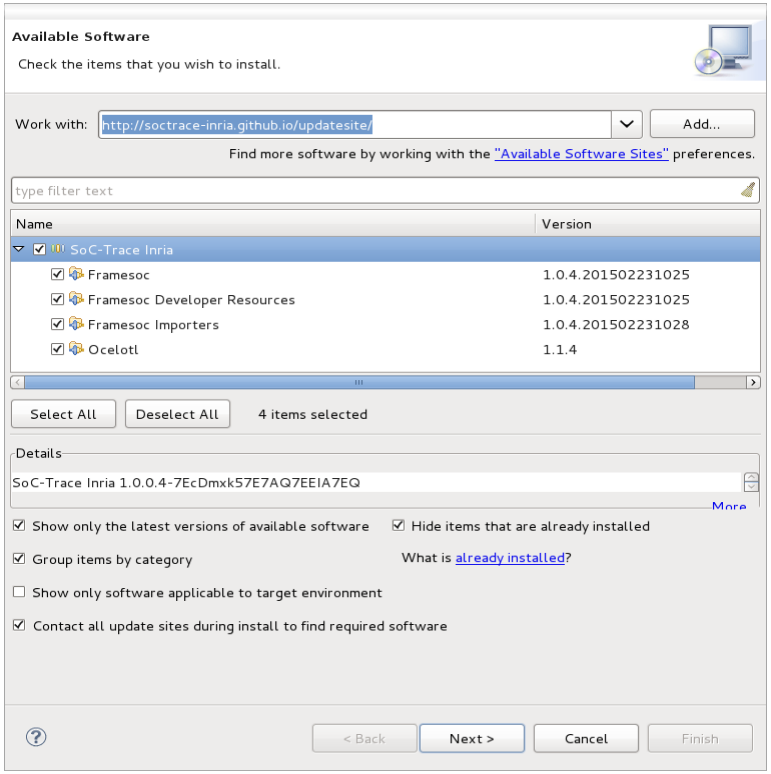
- Installation via Eclipse **update site** mechanism
- *Help > Install New Software… > Work with:*
  http://soctrace-inria.github.io/updatesite/
- Then follow the automatic wizards and… that's it!

Installation details (1)

- Java
  - Install **JRE 7** or later
- Eclipse
  - Download **Kepler** version
    https://www.eclipse.org/downloads/packages/eclipse-standard-432/keplersr2
  - Extract the Eclipse archive
  - Launch the **eclipse** executable in the extracted folder

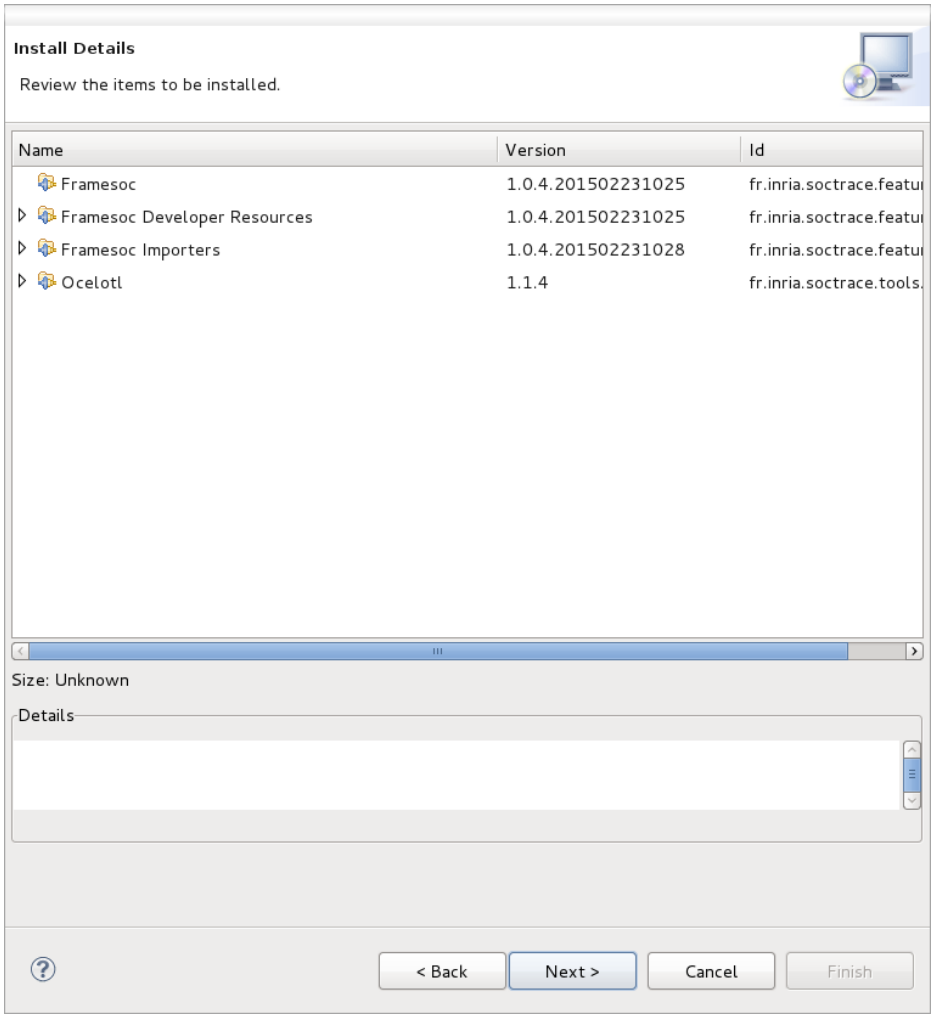
Installation details (2)

- From the Eclipse main menu:
  - **Help** > **Install New Software…**



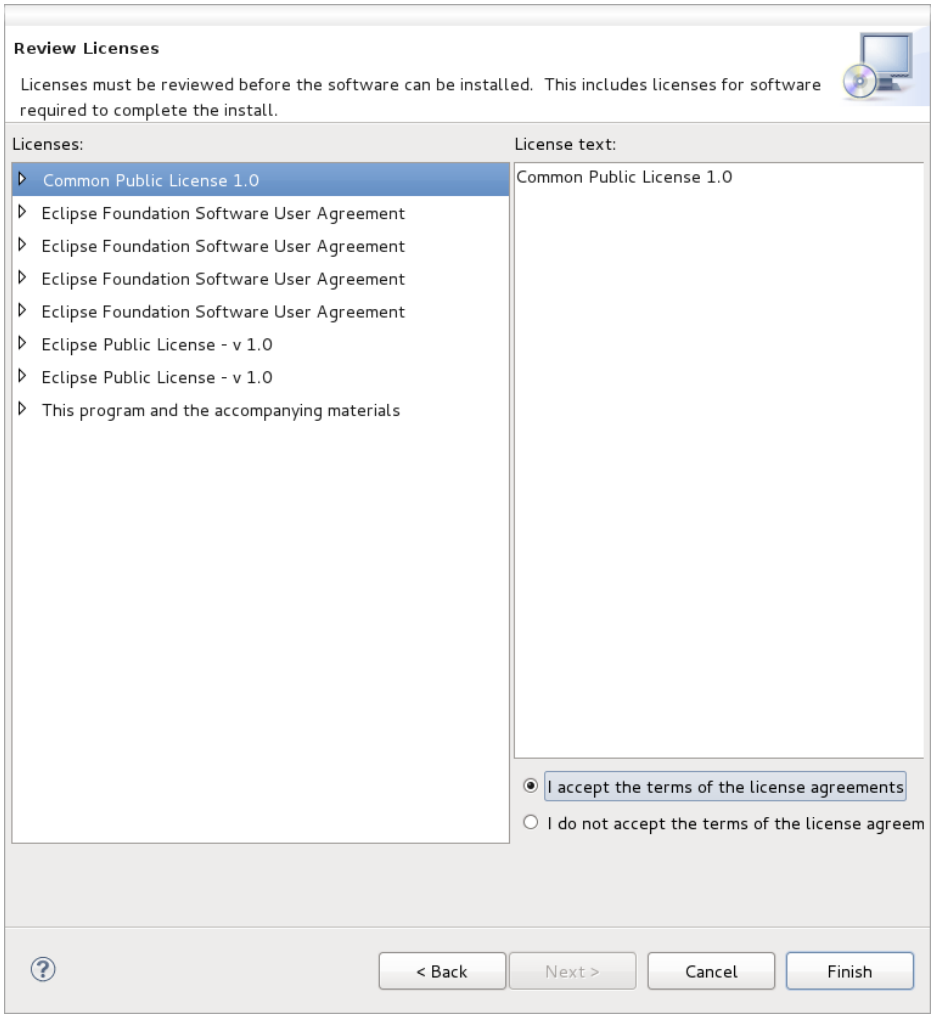
  - **Work with**: http://soctrace-inria.github.io/updatesite/
  - **Select** SoC-Trace Inria modules, then press **Next**.

Installation details (3)



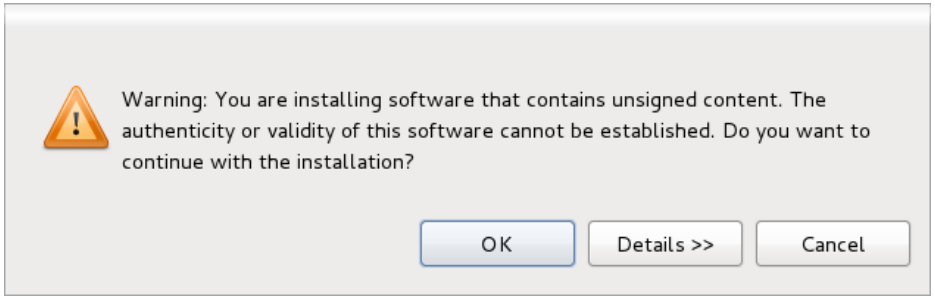
– Press **Next** again.

Installation details (4)

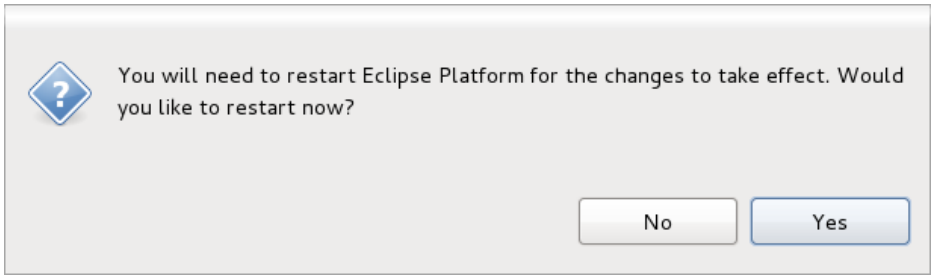


– **Accept** the license agreements and press **Next** again.

Installation details (5)



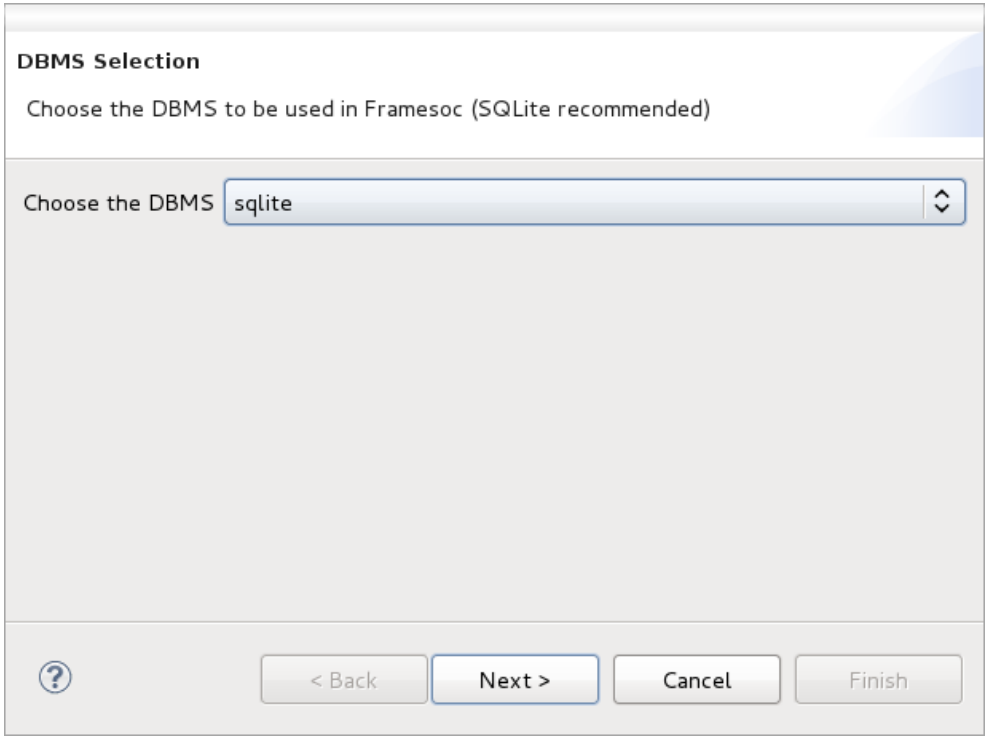
– Press **OK** in the warning dialog.



– Press **Yes** to restart Eclipse.

Initialization (1)

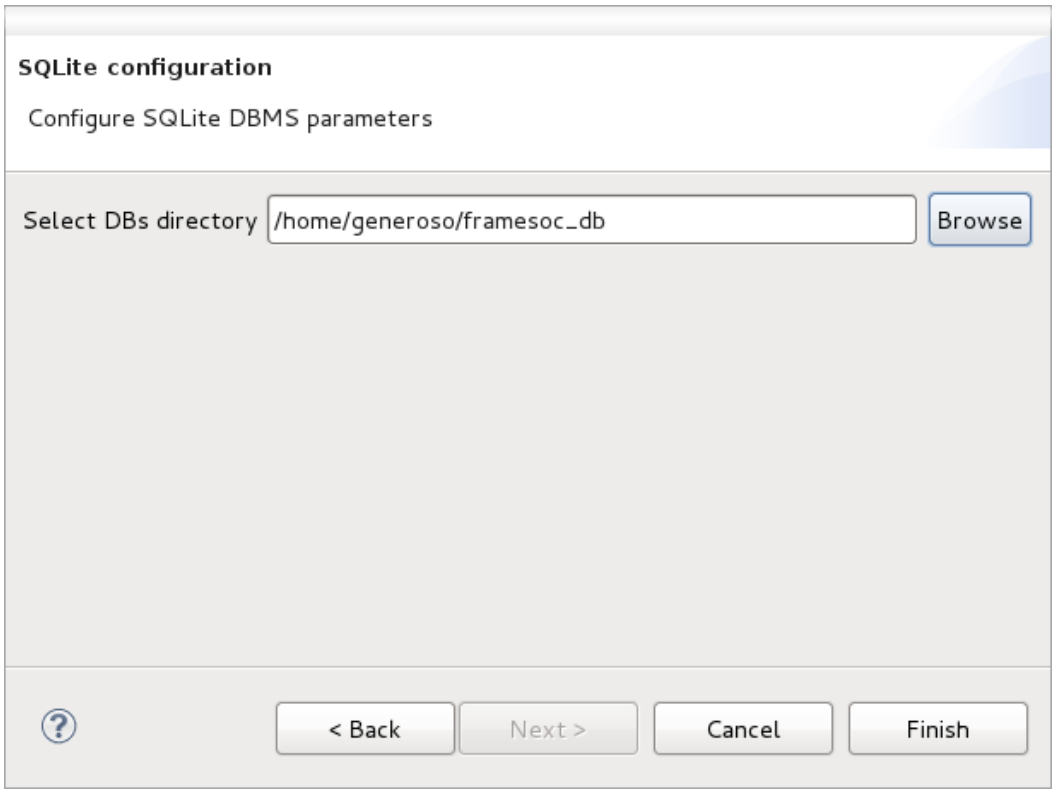
- After restarting, a configuration wizard is shown
  - If not shown: *Framesoc > Management > Initialize System*



  - Select **sqlite**, then press **Next**

Initialization (2)

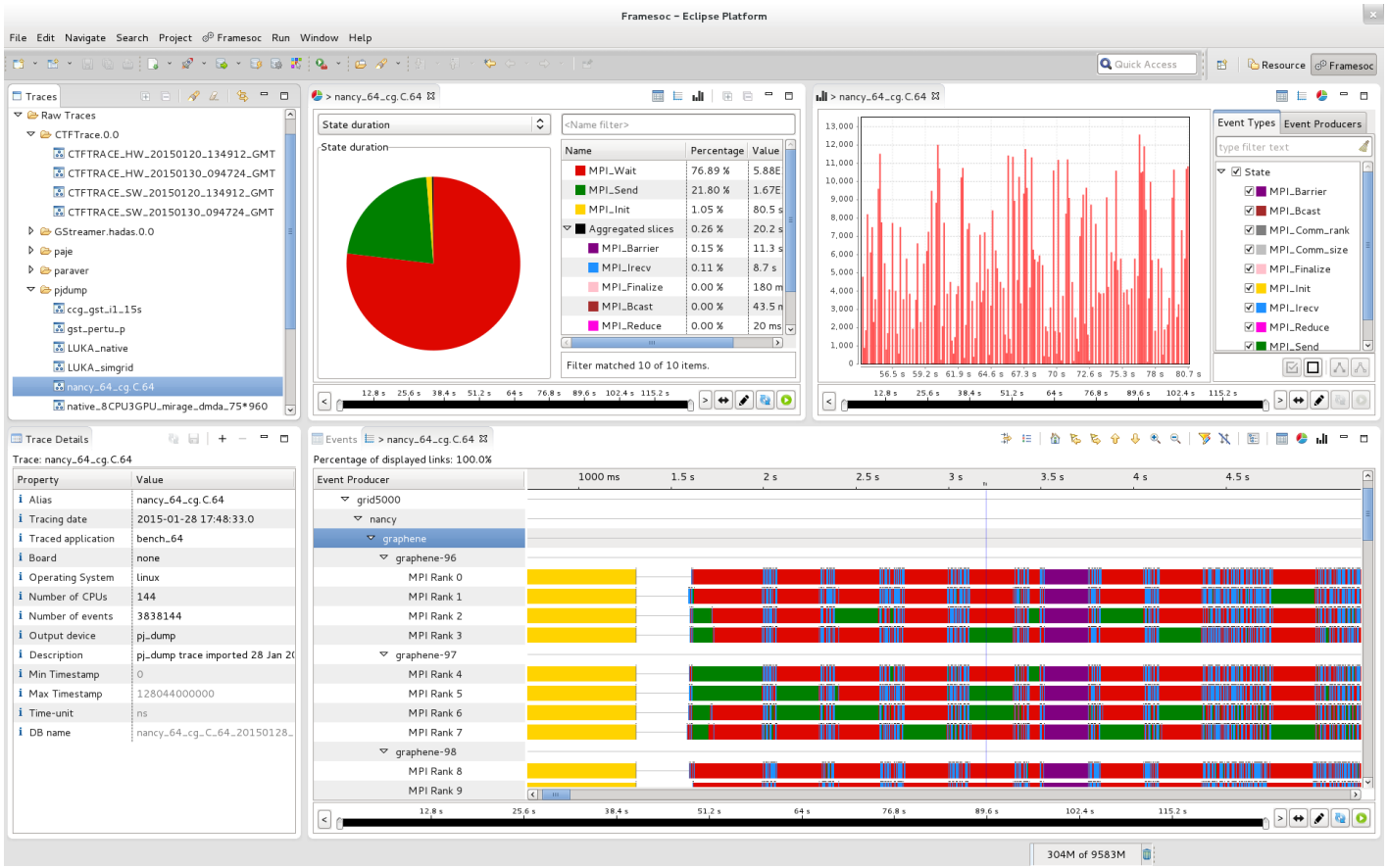
– Specify a directory for the trace databases



– Press **Finish**

Trace Analysis

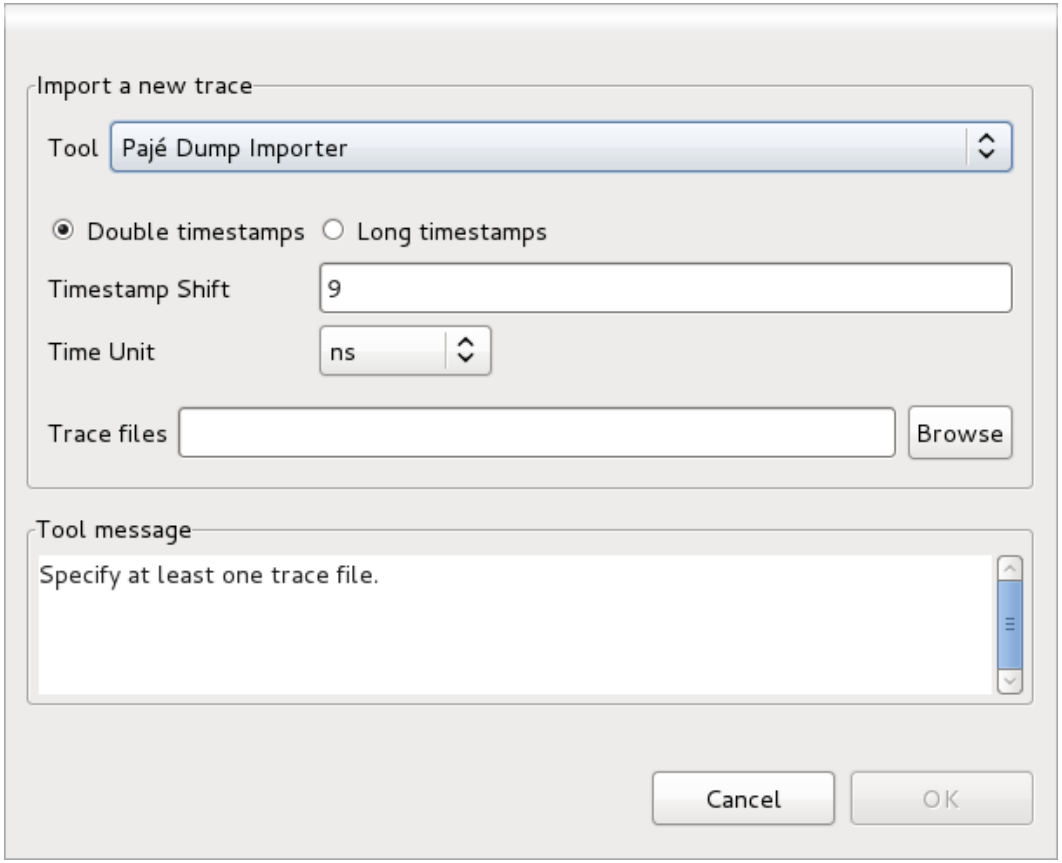
Framesoc perspective



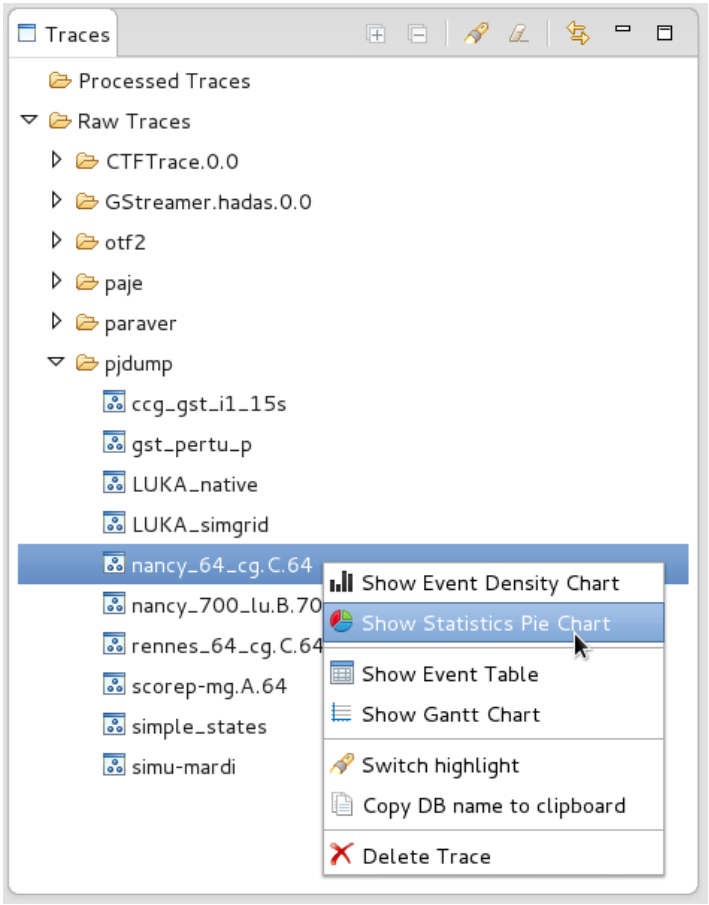
- *Window > Open Perspective > Other… > Framesoc*
- Management of multiple traces
- Different analysis views

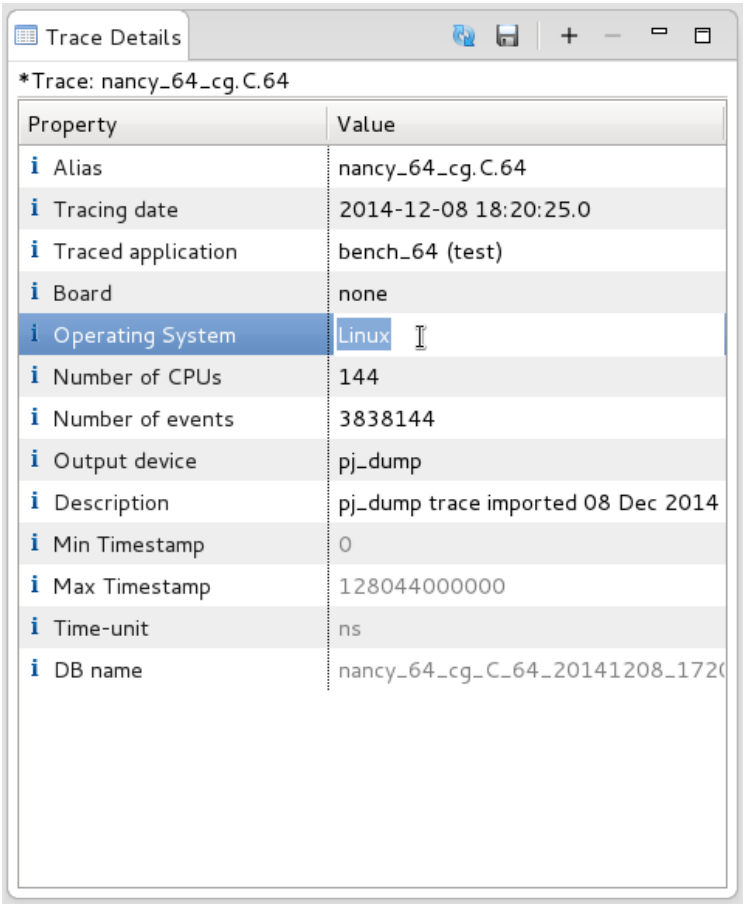
Import a trace

- From Eclipse main menu:
  - Framesoc > Trace Analysis > Import Trace



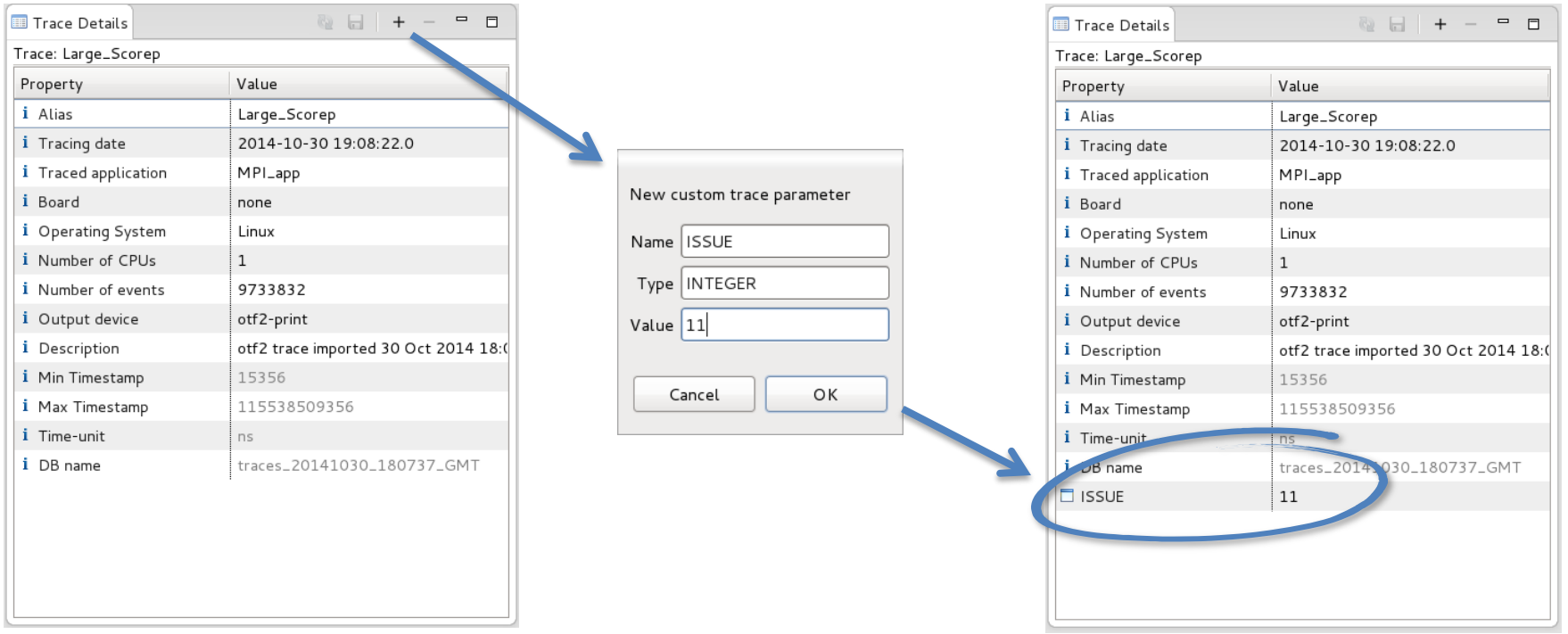
Browse traces and their metadata





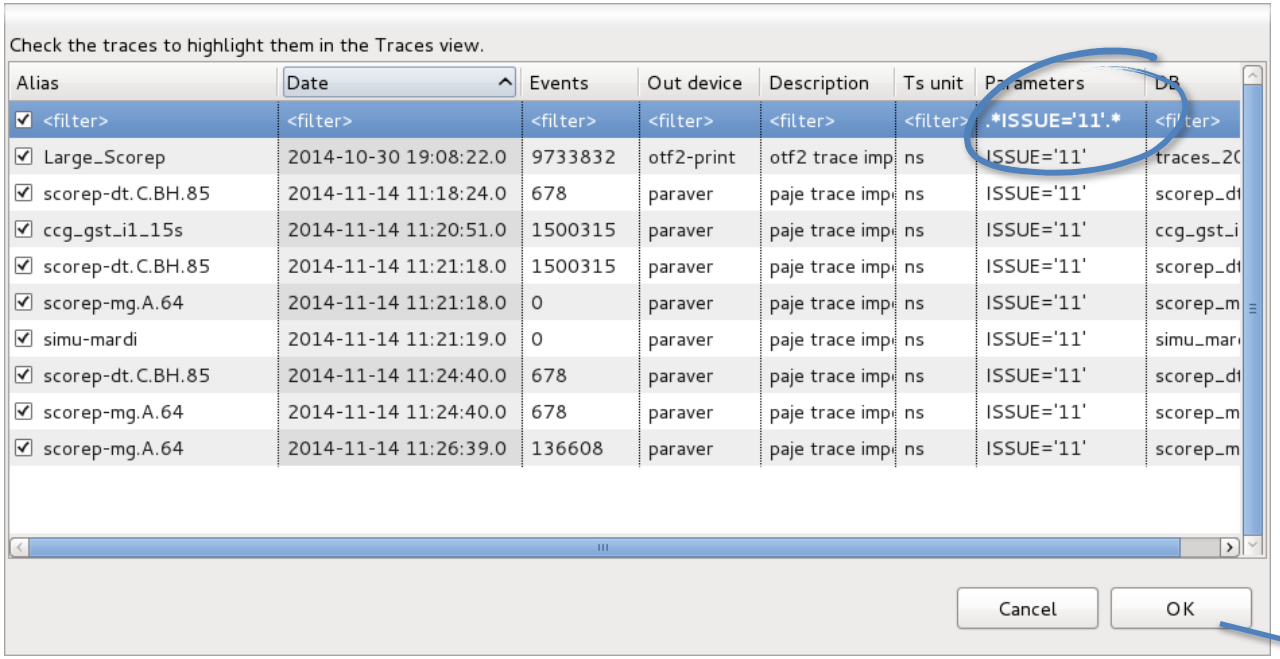
- Trace browser
- Metadata editor

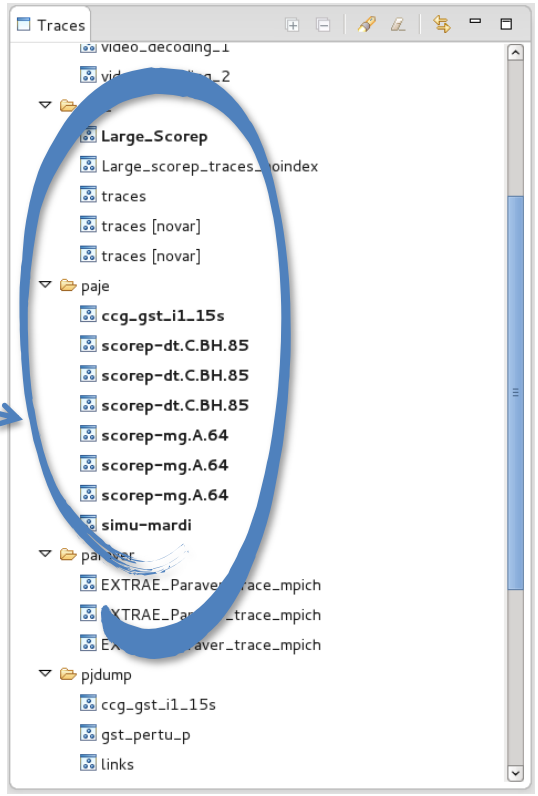
Add custom metadata



- Adding custom metadata to traces
- Tag traces

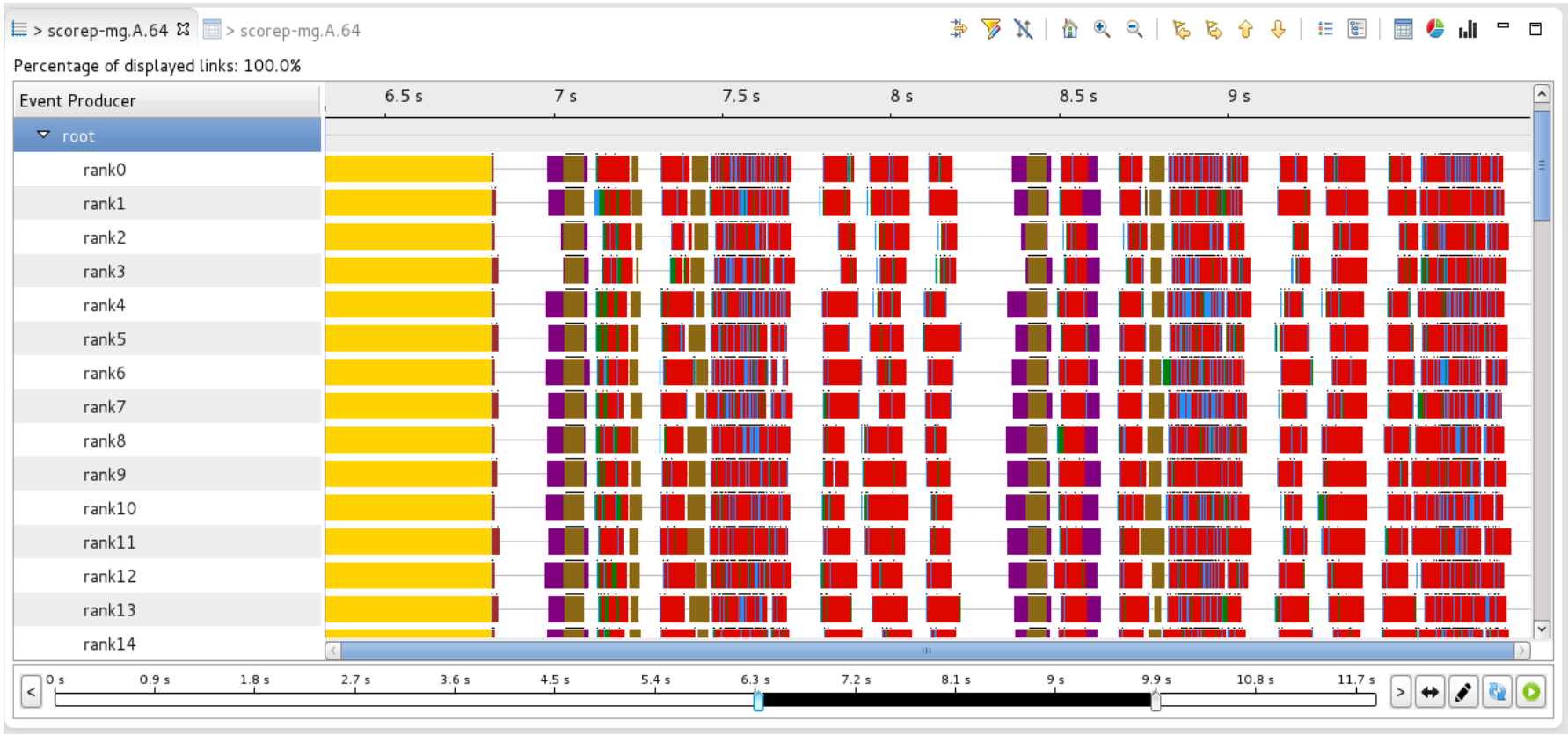
Trace filtering and highlighting





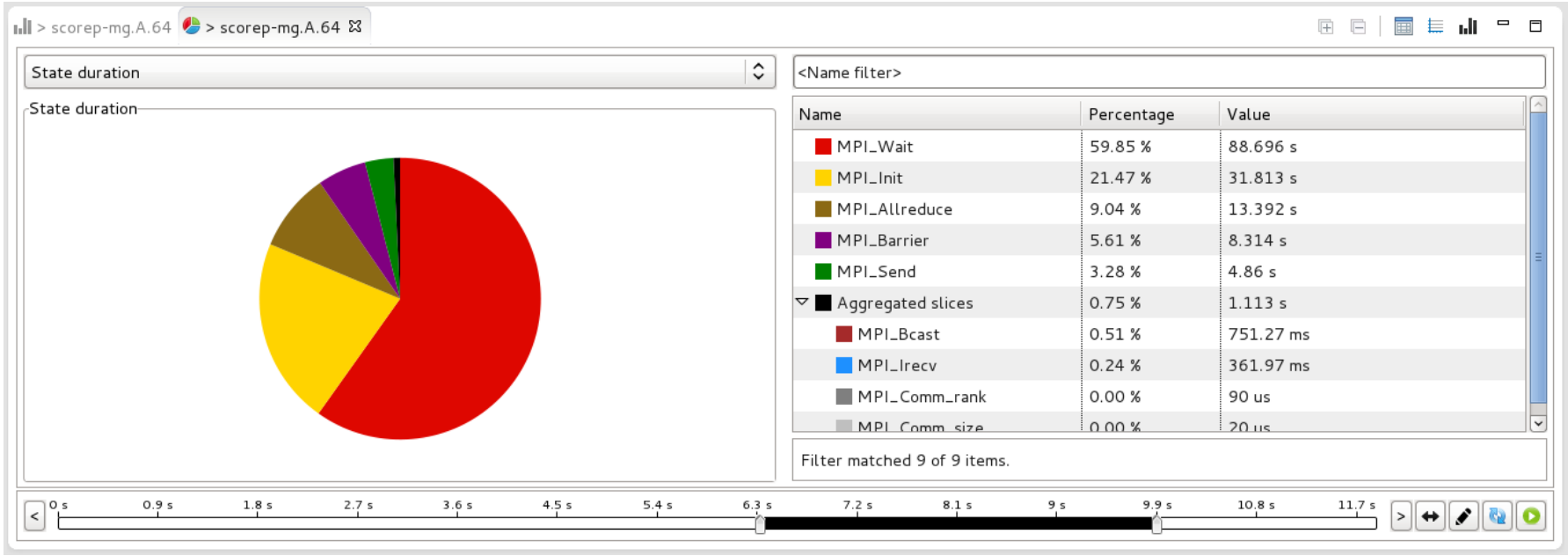
- Filter and highlight interesting traces

Gantt Chart



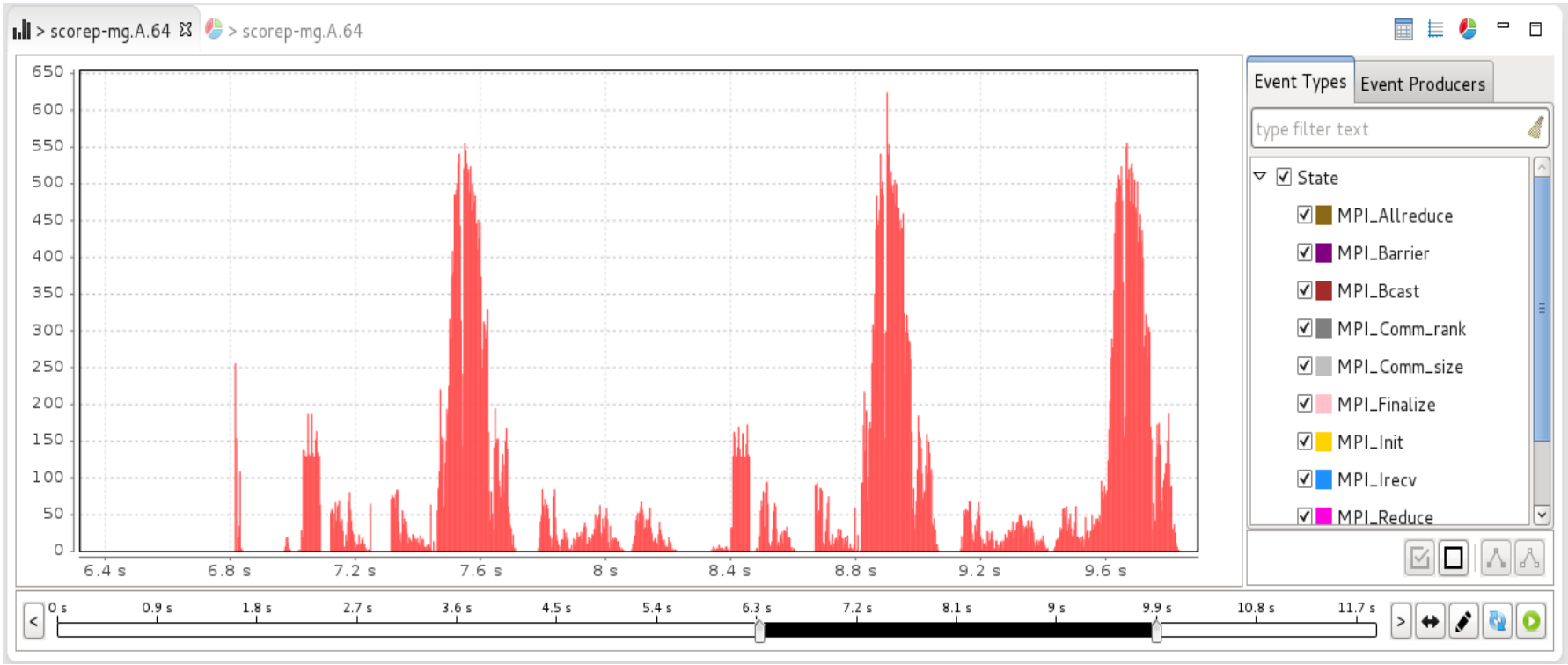
- State aggregation / link filtering
- Event producer / event type filtering

Statistics Pie Chart



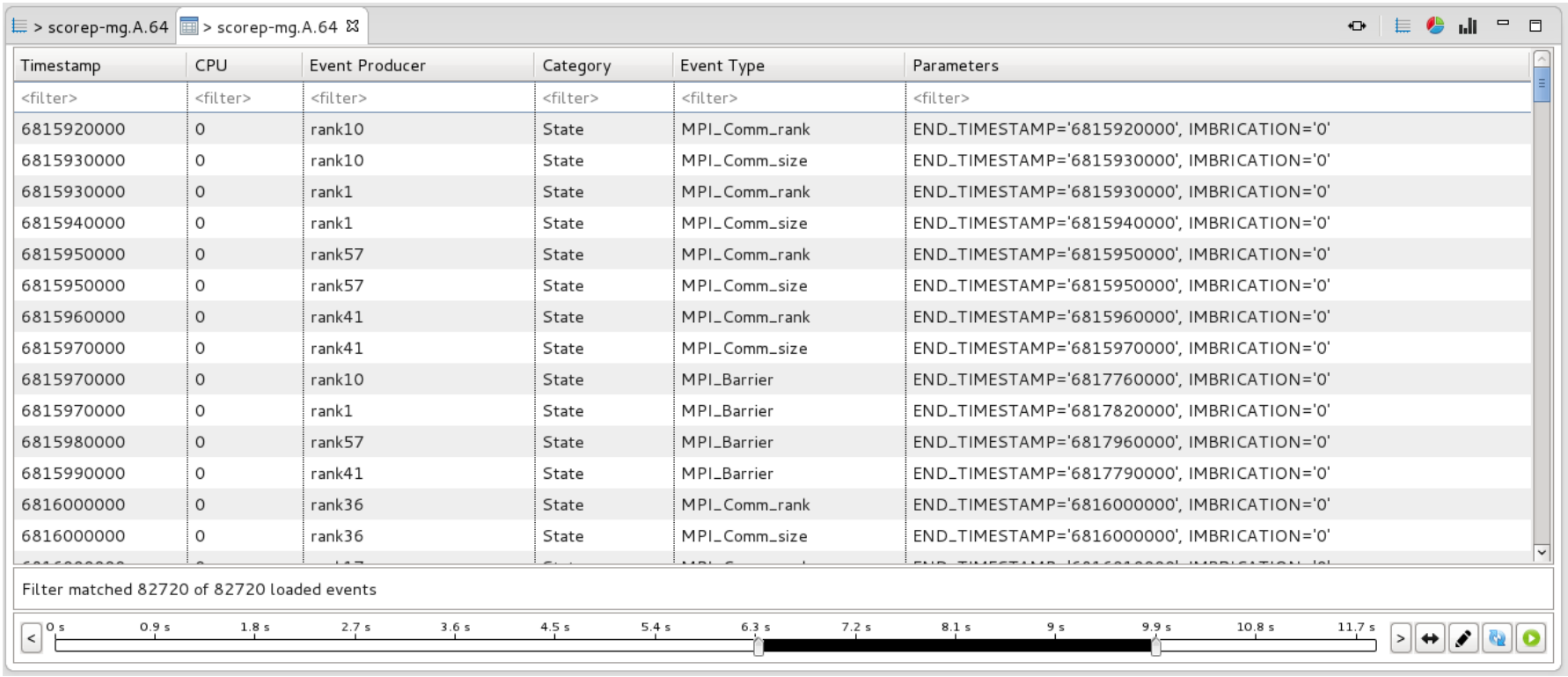
- Several statistics operators
- Statistics computed on generic time interval
- Exclude items from statistics computation
- Group different items

Event Density Chart



- Event type filtering
- Event producer filtering

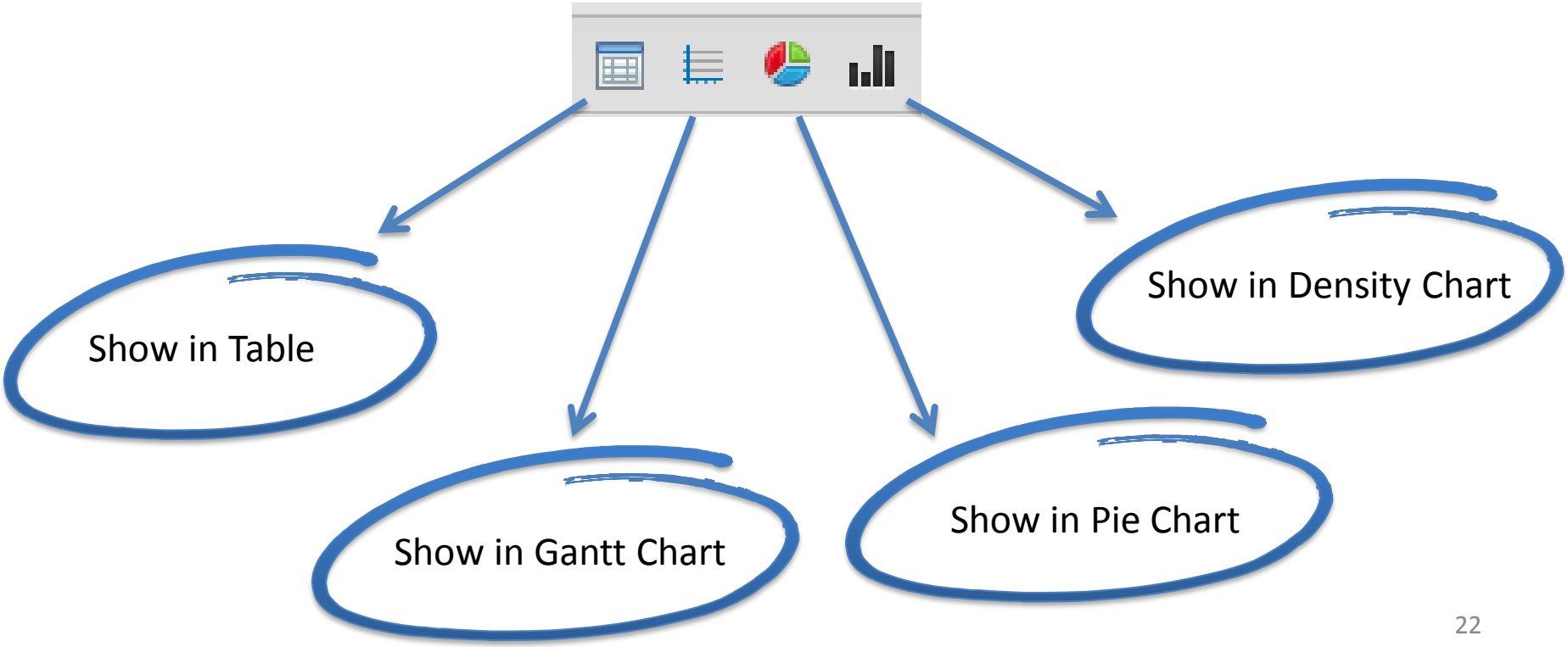
Event Table

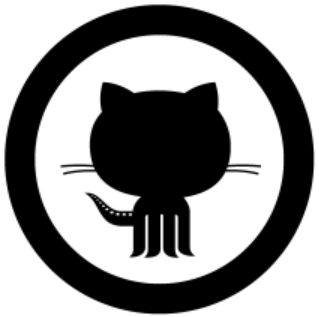


- Filtering column values using regular expression

View switching and synchronization

- Each analysis view toolbar contains **3** of these **4** buttons
  - Each button allows to **switch** to the corresponding view
  - It is possible to **synchronize** views on the time interval





Distribution

Source repository

GitHub

- Code hosted on GitHub **soctrace-inria** organization
  - https://github.com/soctrace-inria/
- Contributions via pull requests

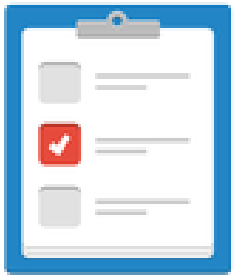
Useful links

- **Framesoc** wiki
  https://github.com/soctrace-inria/framesoc/wiki

- **Framesoc** website
  http://soctrace-inria.github.io/framesoc/

- **Ocelotl** website
  http://soctrace-inria.github.io/ocelotl/

- Test traces
  http://moais.imag.fr/membres/damien.dosimont/files/traces/



Perspectives

Some perspectives

- Storage using NoSQL distributed solutions
  - Cassandra
- Multidimensional filtering in all view
  - Time / Event Producers / Event Types
- …

Just have a look at our github:issues

https://github.com/soctrace-inria/framesoc/issues

Questions?