

## Framesoc Code Review

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## Agenda

#### Framesoc overview

- General architecture
- Eclipse framework
- Database

### Getting under the hood

- Getting the sources
- Configuring a dev environment
- Code structure

### Framesoc overview

### General Architecture

#### Framesoc

**Framesoc Workbench** 

GUI, pub/sub, tool management

**SoC-Trace Library** 

Base API: model, storage, query

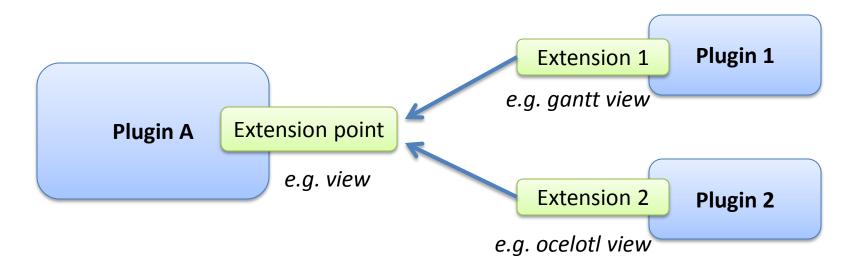
**Eclipse Framework** 

#### **Trace Database**

traces, tools, analysis result

# **Eclipse Framework**

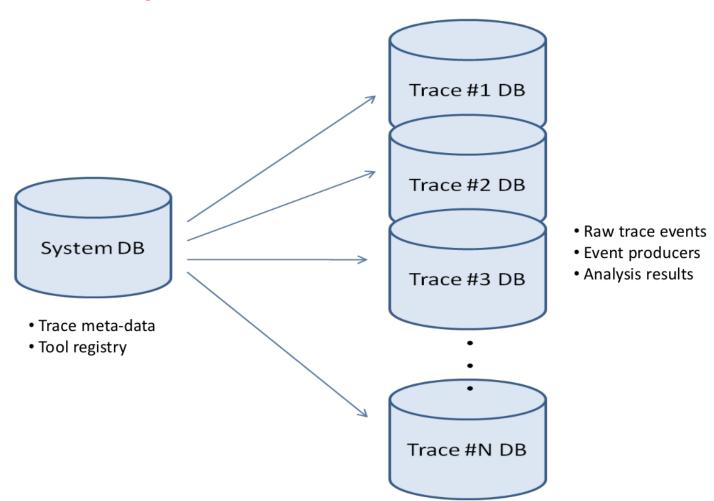
- Generic framework for developing applications:
  - Base core + plugins
- Extensions/Extension points mechanism [1]
  - Contribute functionalities to plug-ins by other plug-ins



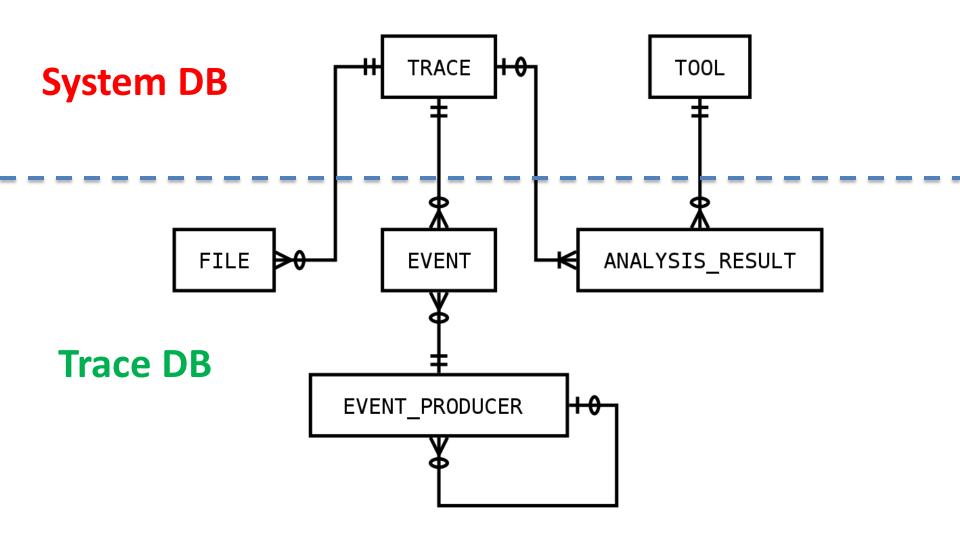
[1] http://www.vogella.com/tutorials/EclipseExtensionPoint/article.html

### Database: Architecture

One central System DB and several Trace DBs.



# Database: Conceptual Diagram



# Database: Relational Diagram

NAME VARCHAR(128)

■ EVENT\_PARAM\_TYPE ▼

PEVENT\_TYPE\_ID INT(11)

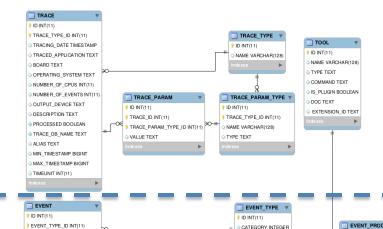
TYPE VARCHAR(128)

PARENT ID INT(11)

NAME TEXT

LOCAL ID VARCHAR(128)

#### **System DB**



EVENT\_PARAM

EVENT\_ID INT(11)

PEVENT\_PRODUCER\_ID INT(11)

TIMESTAMP BIGINT(20)

O CPU INT(11)

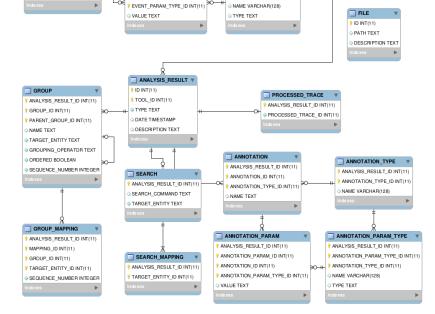
O PAGE INT(11)

DPAR BIGINT

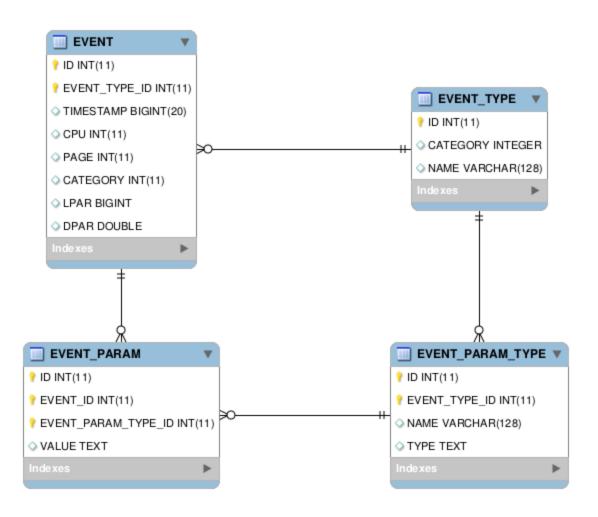
DPAR DOUBLE

CATEGORY INT(11)

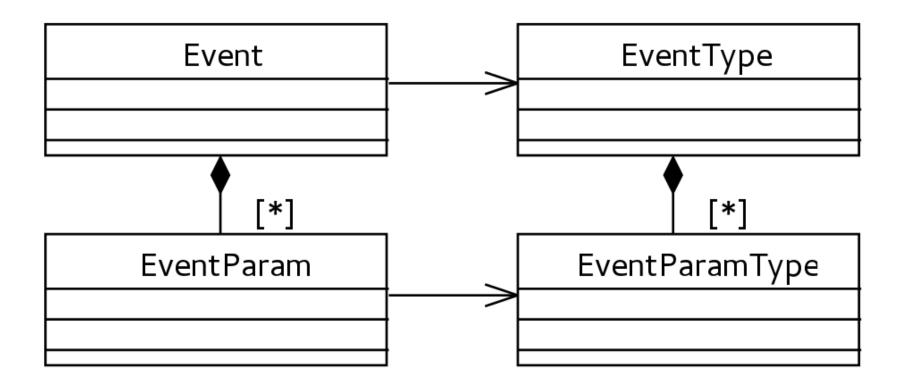
#### **Trace DB**



# Self-Defining Pattern: relational



# Self-Defining Pattern: classes



# Getting under the hood

## Getting the sources

- Code hosted on GitHub soctrace-inria organization
  - https://github.com/soctrace-inria/

- Repositories to clone:
  - framesoc
  - framesoc.importers

## Configuring a dev environment

- Follow the procedure described in the wiki
  - Framesoc development environment setup
- Checklist:
  - Be sure to have Java 7
  - Be sure to use a version of Eclipse >= 4.3
    - version Luna 4.4.2 recommended
  - Be sure to use Eclipse for RCP and RAP Developers
  - Be sure to install the **Tycho** m2e connector

### Framesoc code structure

#### SoC-Trace Library

- fr.inria.soctrace.lib.model
- fr.inria.soctrace.lib.storage
- fr.inria.soctrace.lib.query
- fr.inria.soctrace.lib.search
- fr.inria.soctrace.lib.utils
- fr.inria.soctrace.lib.slf4j

#### Framesoc workbench

- fr.inria.soctrace.framesoc.core
- fr.inria.soctrace.framesoc.ui
- fr.inria.soctrace.framesoc.ui.eventtable
- fr.inria.soctrace.framesoc.ui.gantt
- fr.inria.soctrace.framesoc.ui.histogram
- fr.inria.soctrace.framesoc.ui.piechart

#### Eclipse configuration plugins

- fr.inria.soctrace.maven.master
- fr.inria.soctrace.maven.repository
- fr.inria.soctrace.features.framesoc
- fr.inria.soctrace.framesoc.brand

#### Others

- fr.inria.soctrace.test.junit
- fr.inria.soctrace.tools.framesoc.exporter

#### Lttng plugins

- fr.inria.linuxtools.statesystem.core
- fr.inria.linuxtools.tmf.core
- fr.inria.linuxtools.tmf.ui

## Importers code structure

#### Importers

- fr.inria.soctrace.tools.importer.ctftrace
- fr.inria.soctrace.tools.importer.gstreamer
- fr.inria.soctrace.tools.importer.otf2
- fr.inria.soctrace.tools.importer.paje
- fr.inria.soctrace.tools.importer.pajedump
- fr.inria.soctrace.tools.importer.paraver
- fr.inria.soctrace.tools.importer.starpu

#### Eclipse configuration plugins

- fr.inria.soctrace.importers.maven.master
- fr.inria.soctrace.importers.maven.repository
- fr.inria.soctrace.features.importers

#### Lttng plugins

- fr.inria.linuxtools.ctf.core
- fr.inria.linuxtools.ctf.parser
- fr.inria.linuxtools.lttng2.kernel.core
- fr.inria.linuxtools.tmf.ctf.core

### Useful links

Framesoc website

http://soctrace-inria.github.io/framesoc/

Framesoc wiki

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

Eclipse plugin development tutorial

http://www.vogella.com/tutorials/EclipsePlugIn/article.html

Eclipse extension point tutorial

http://www.vogella.com/tutorials/EclipseExtensionPoint/article.html

## Questions?

