Requirements Engineering and Management with Eclipse

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itemis AG

Agenda

- Context & Motivation

- Technologies

- Live-Demo

- Conclusion & Next Steps

How is it?

- Heterogeneous tools & artefacts are usual

- Bundled/integrated requirements engineering solutions address only parts of the overall landscape

- Quality: Tracing is important to do good Requirements Management

- Weak tool support: Requirements-Tracing throughout the complete development chain is difficult and is not a favourite development activity

VERDE

- „VERification- oriented & component-based model Driven Engineering for real-time embedded systems"

- Aim of providing a generic tool platform for the verification- and validation-orientated development of embedded systems

- Verde develops new tools and methods in the areas where there are gaps in existing tool-chains and procedures
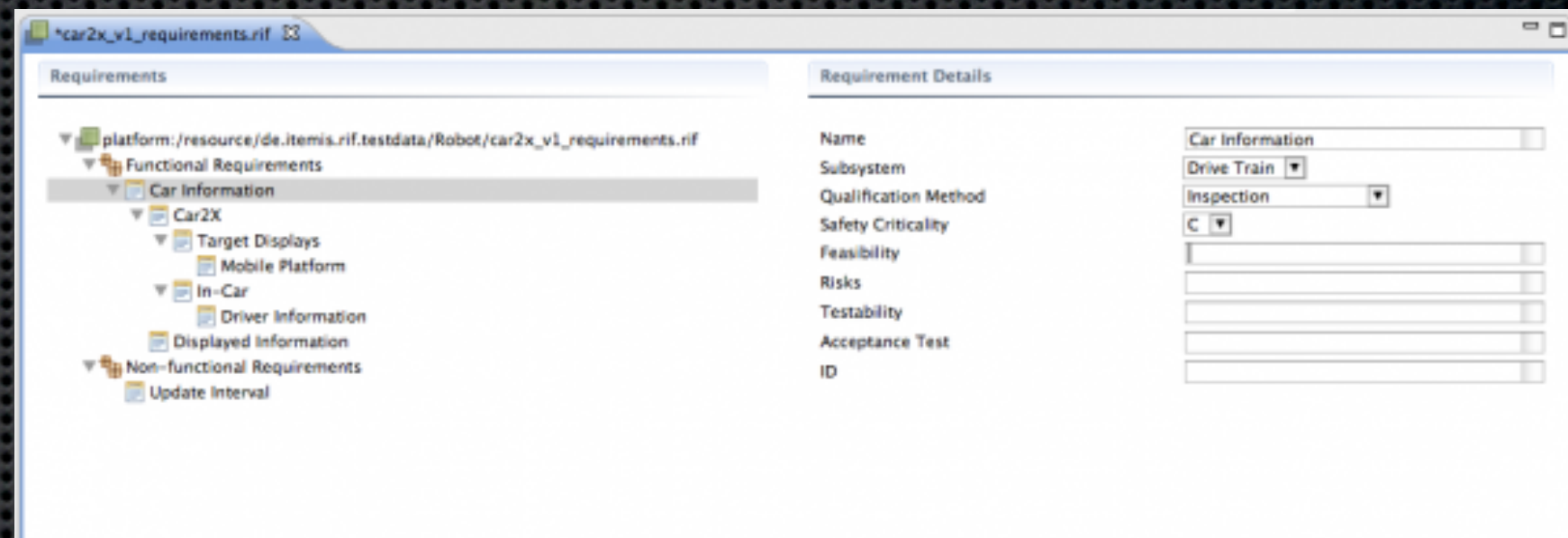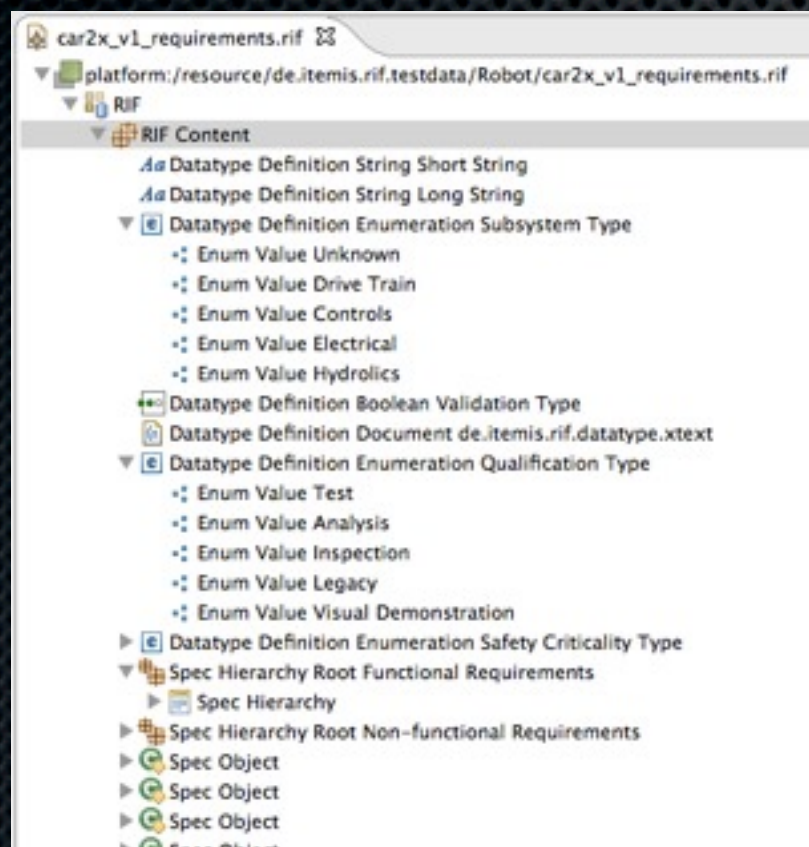
RIF/ReqIF

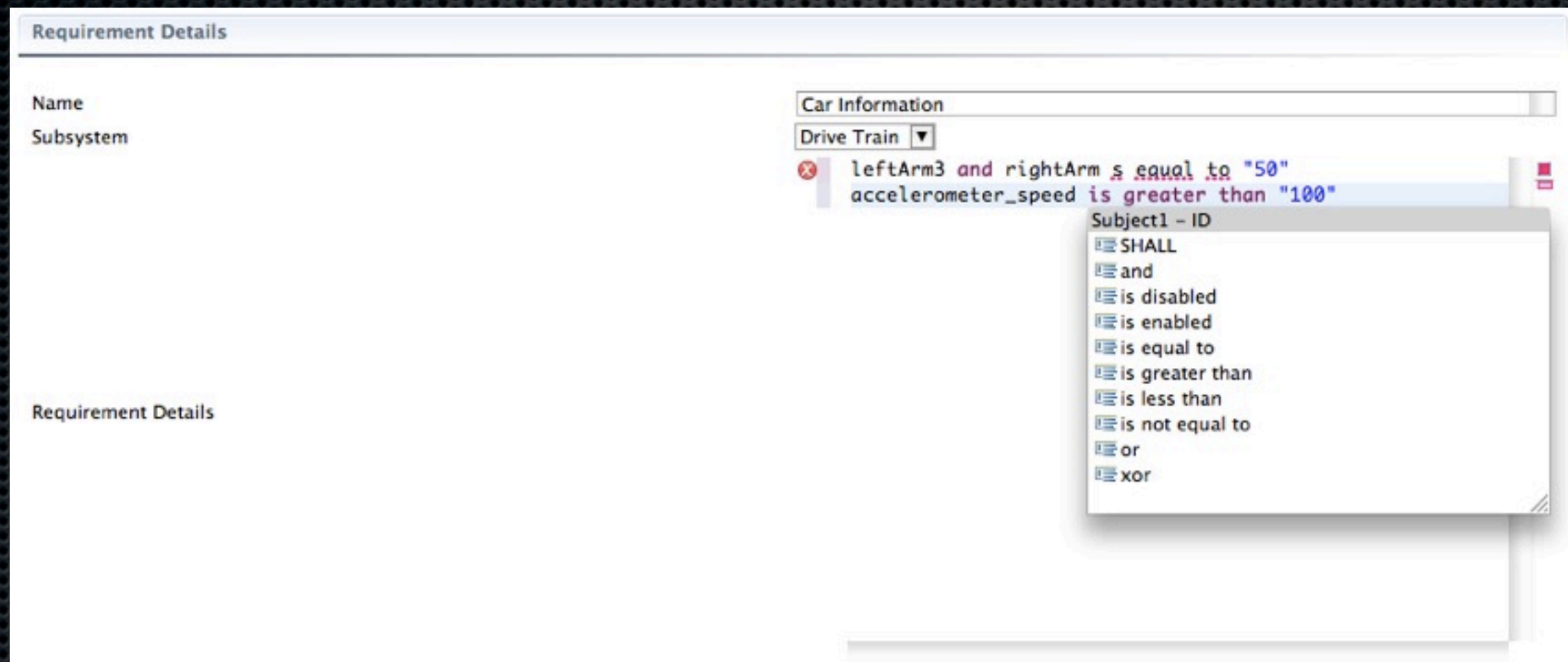- Modular

- Internal DSL
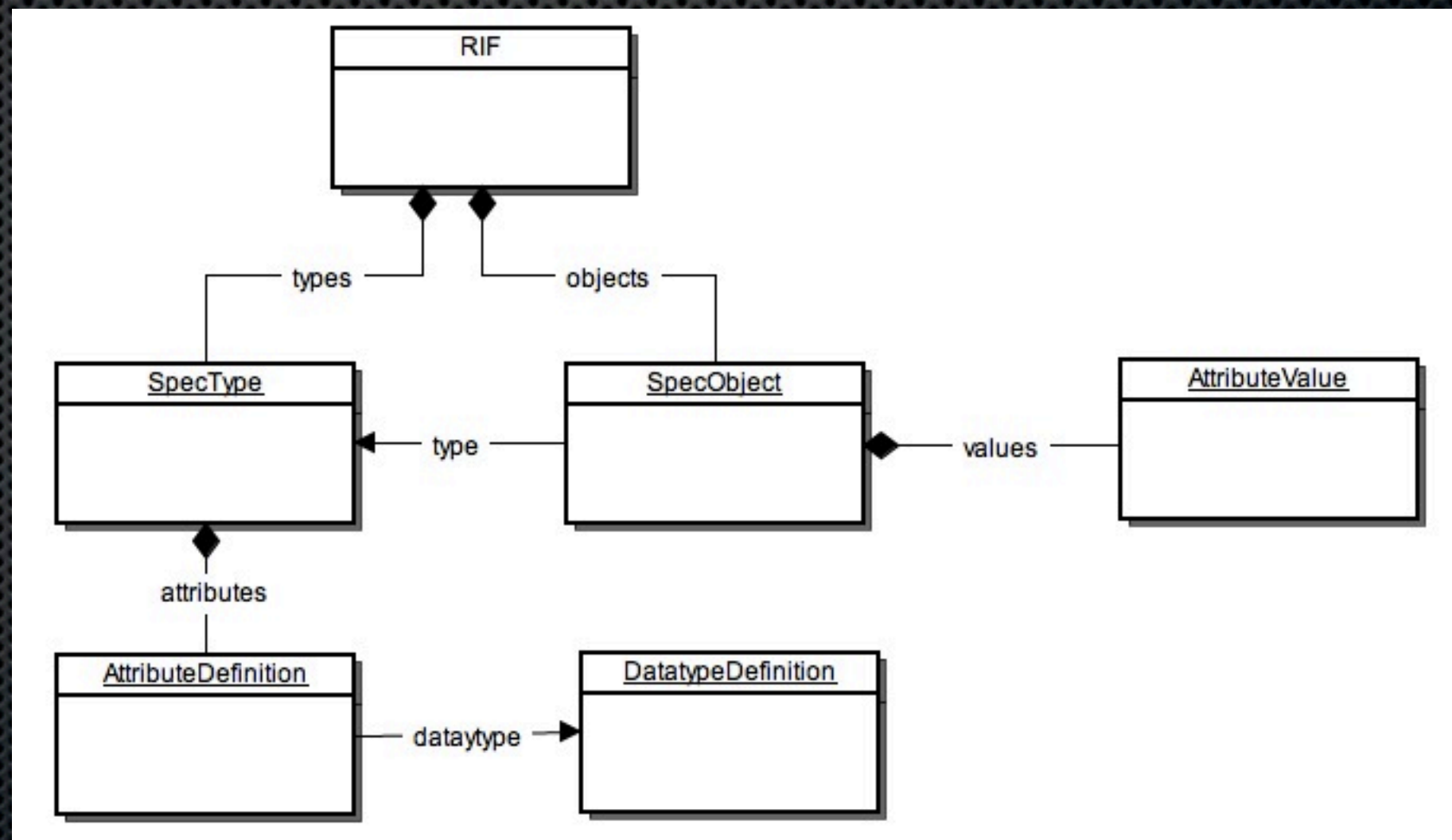
RIF/ReqIF Core

- Ecore Model, including serialisation to XML

    - RIF 1.1a - planned

    - RIF 1.2 - done

    - ReqIF Beta2 - almost done

- Derived from the specification by model transformation

- Driven by itemis

- EPL (Eclipse Public License)

- Currently submitting an Eclipse project proposal

RIF/ReqIF Editor

Be more formal with Xtext

Alternative UI

ProR

- Deploy-sponsored project

- Cooperation of itemis and Heinrich Heine University Dusseldorf

- Uses the Verde RIF/ReqIF Core
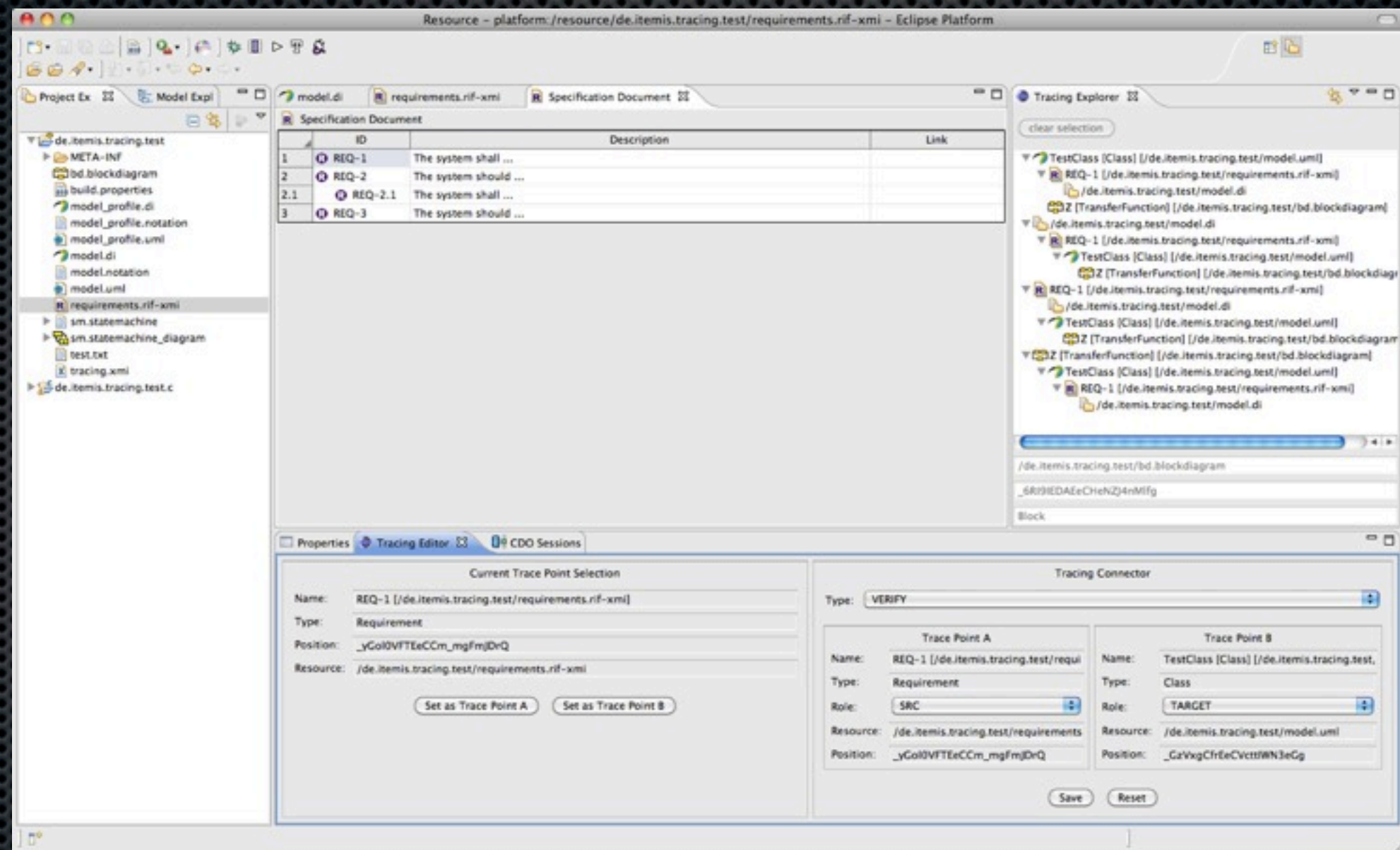
- Xtext feature integrated

Alternative UI
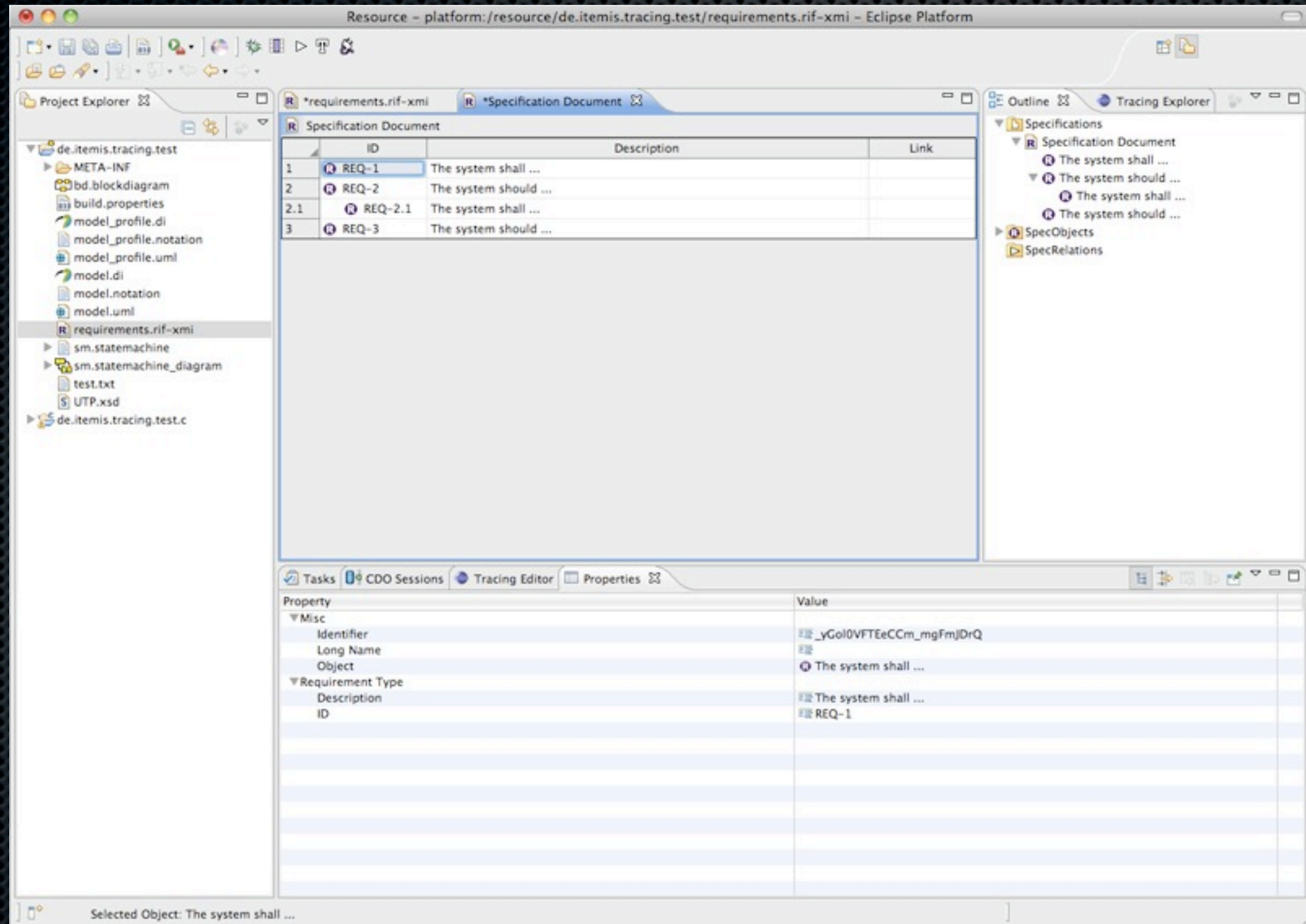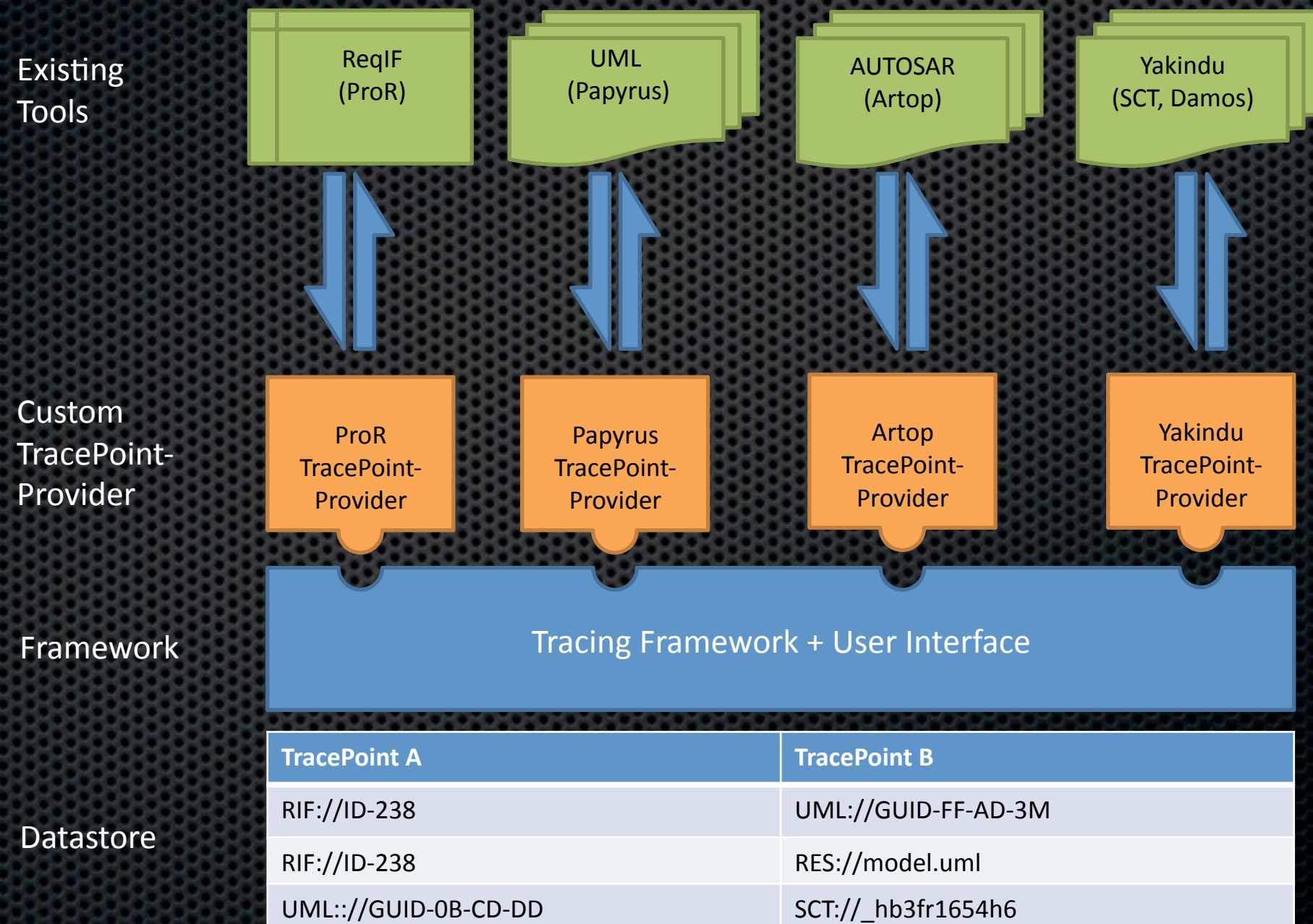
Tracing

Tracing

- Editor

- Navigator

- Reports

- EPL

Tracing
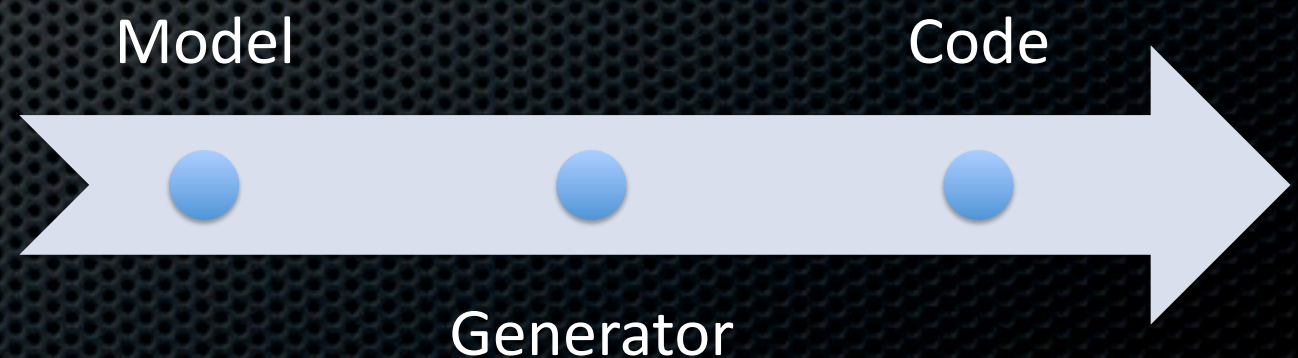

- Loose coupling

- EMF serialization

  - CDO resources

  - File resources
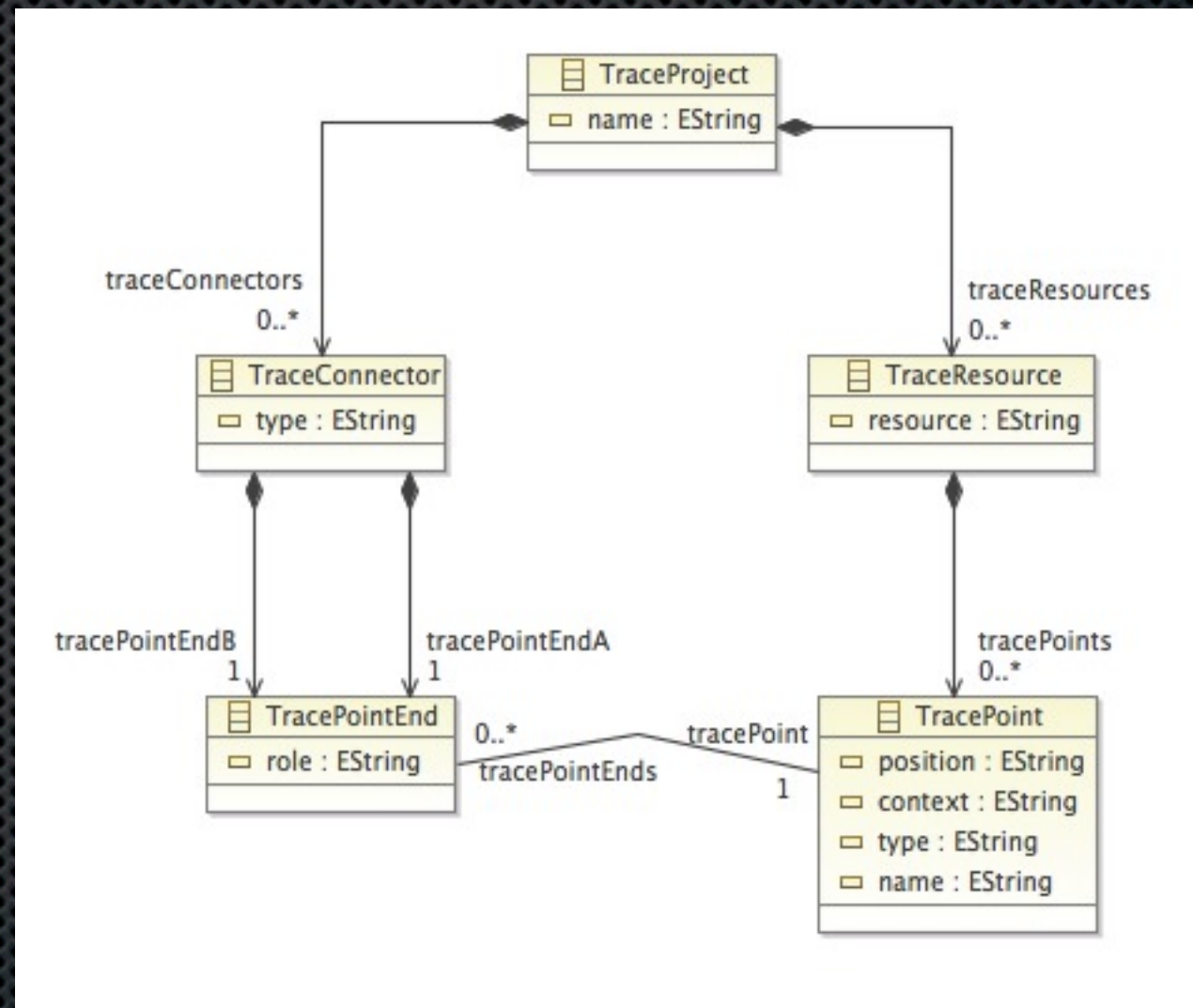
Next steps

- Custom Queries

- Reports

- Sync features

- Import features

- Generator Tracing

Model   Code

Generator

Questions ?

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