Brief history

- **Paul was my 2nd "promotor" in 1992**
- **In 1992 I started as assistant professor in his group at the UvA:**
  - **pretty printer generation**
- **In 1997 I moved to his group at CWI:**
  - **ASF+SDF Meta-Environment**
  - **ASF2C compiler**
- **In 2006 I left CWI and moved to Eindhoven University of Technology**
  - **Model Driven Software Engineering**

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Context

Model Driven Engineering is gaining popularity

Academia

ICMT2008 ICMT2009 ICMT2010 ICMT2011

MoDeVVa 2011   TOOLS Conference Series   ICMT2012

MODELS 2011   TTC 2011

MODELS 2012 innsbruck   MoDeVVa 2012   AMT2012

Industry

ASML   VANDERLANDE INDUSTRIES   DAF   PHILIPS

SIOUX   océ

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Model transformations are software too

Design
Methodology

Reuse

Maintenance

Context

Reuse

1. As-is

2. With modifications

Context

Maintenance

1. **Corrective**

2. **Adaptive**

3. **Perfective**

Context

Analysis techniques are required for model transformations

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Contributions

Metrics

Structure and dependency analysis

Meta-model coverage analysis

Model transformation traceability

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Metrics for Model Transformations

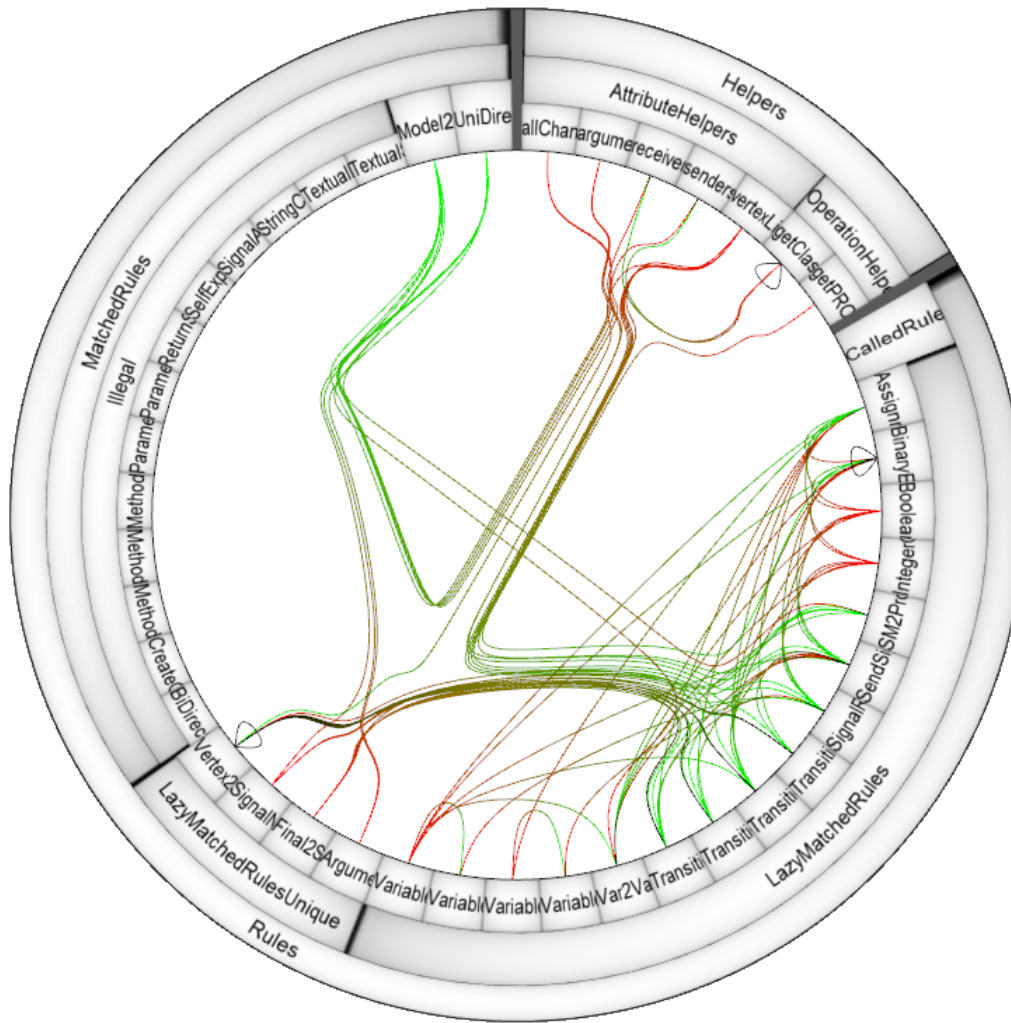**Using Metrics for Assessing the Quality of ASF+SDF Model Transformations**

M.F. van Amstel, C.F.J. Lange, M.G.J. van den Brand

In *Proceedings of the Second International Conference on Model Transformation (ICMT 2009)*
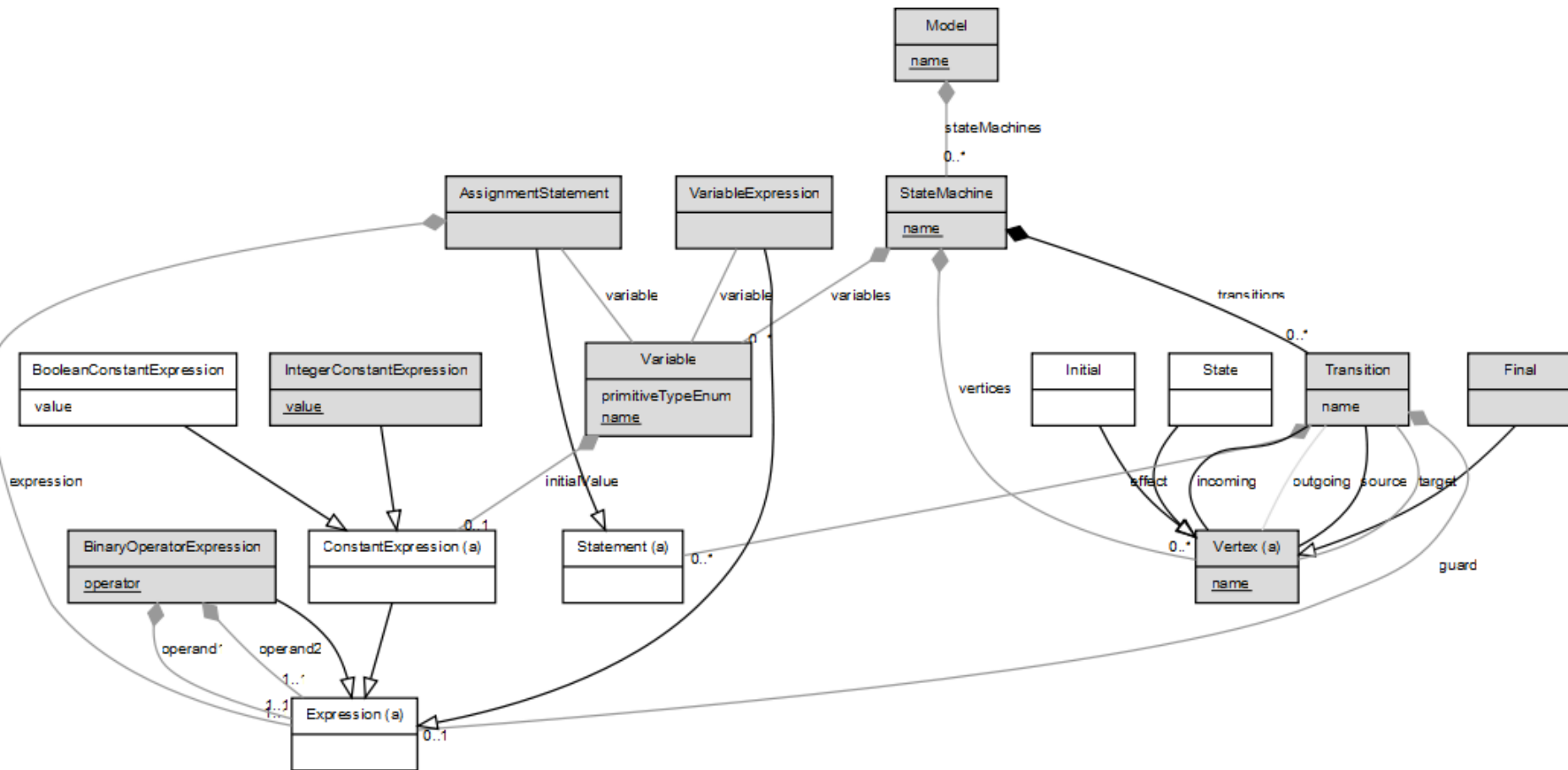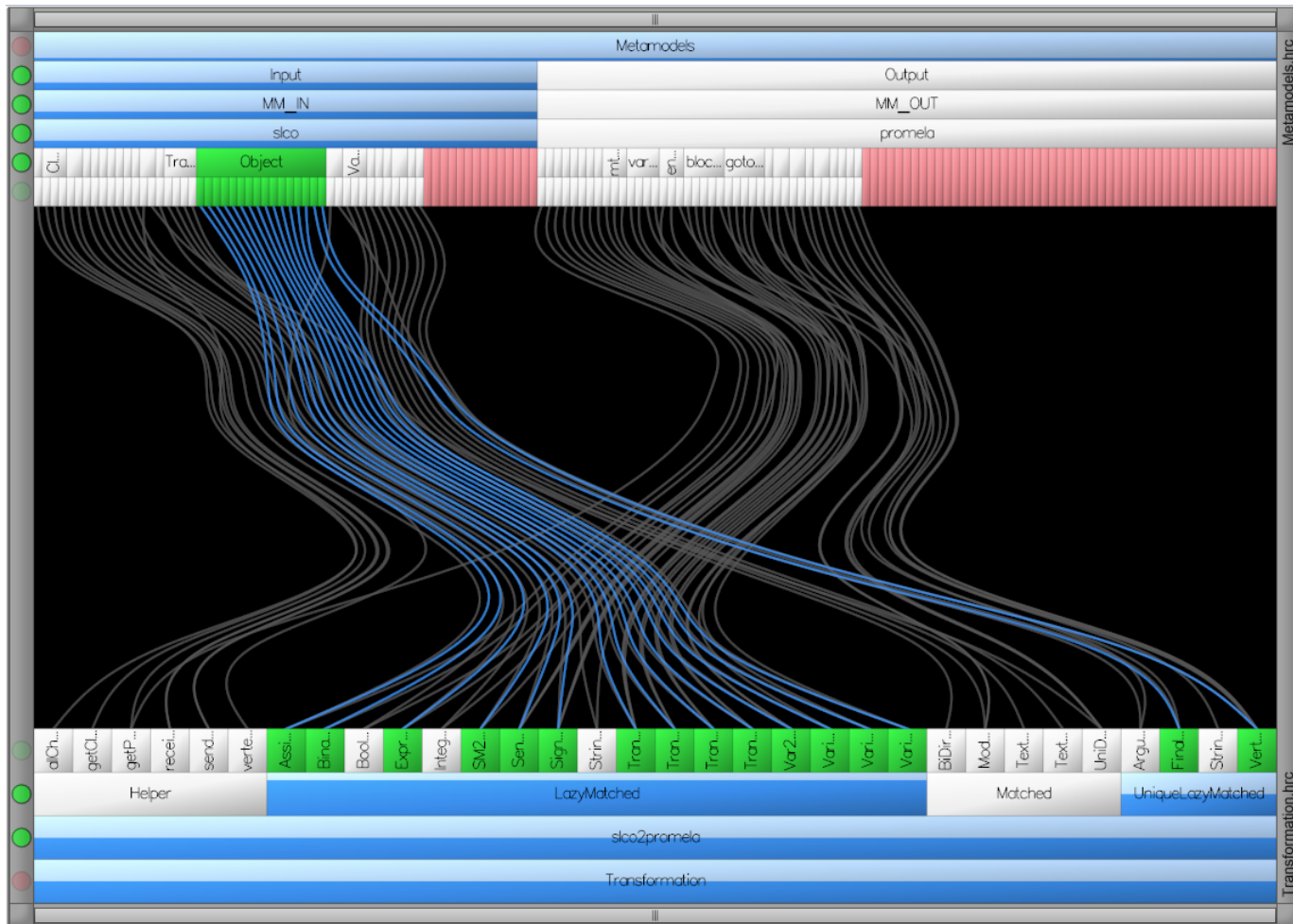
Structure Analysis
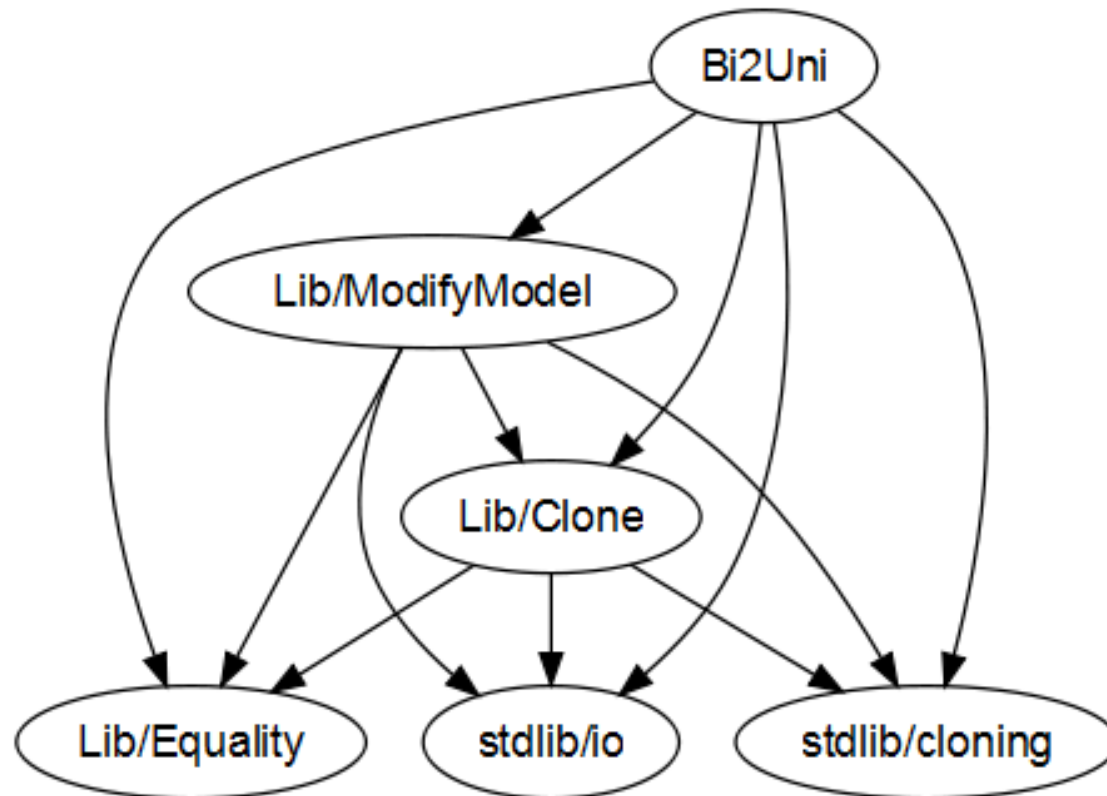
Structure and Dependency Analysis
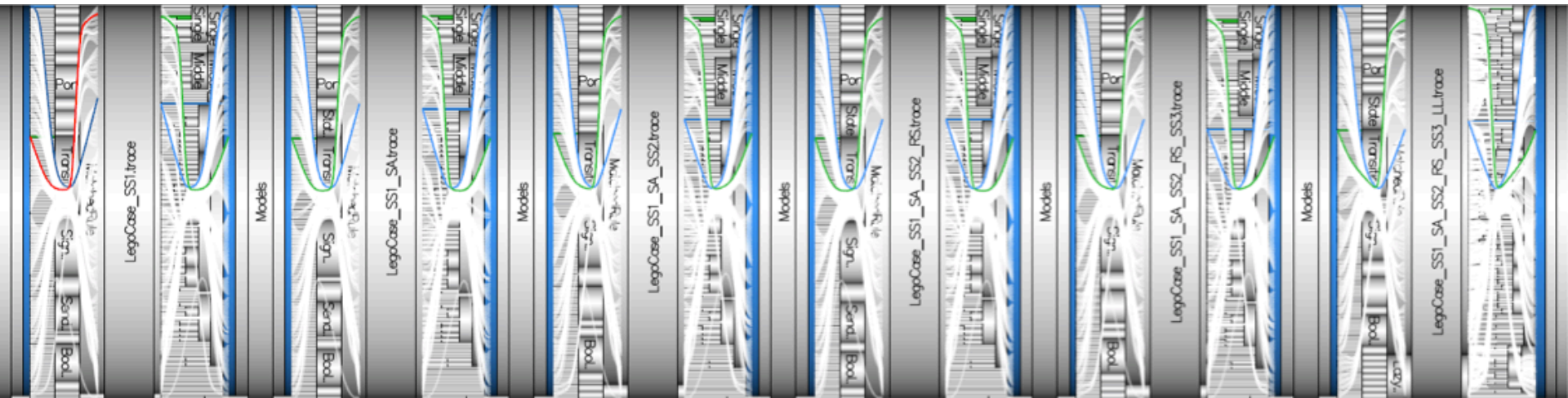
Meta-model Coverage

Meta-model Coverage

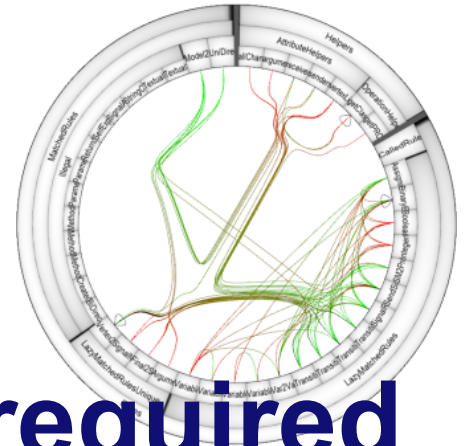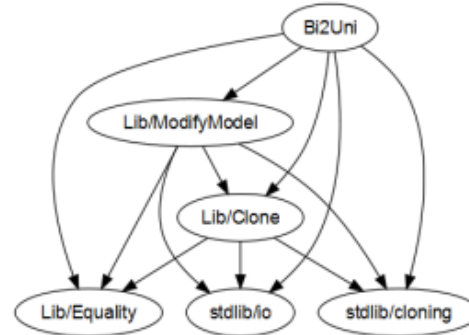# Model transformation traceability

- **Origin tracking of model transformations:**

  - **Debugging domain-specific models**

  - **Analysis of domain-specific models**

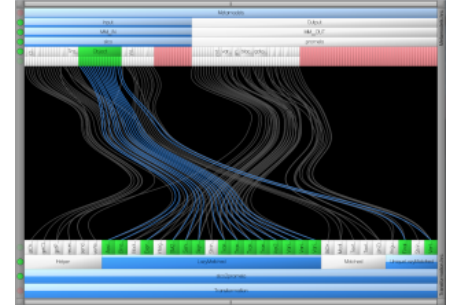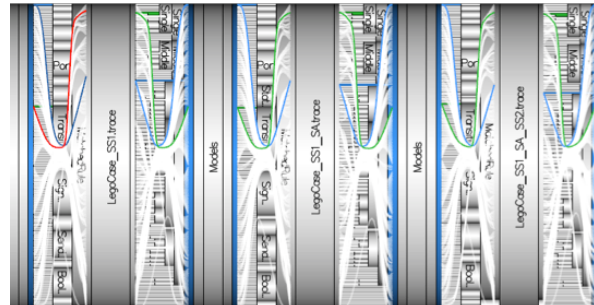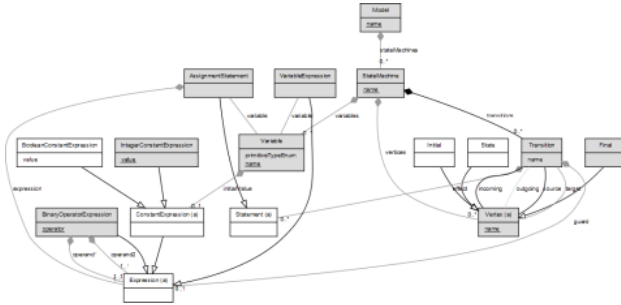 - **Determining the effect of a source model change**

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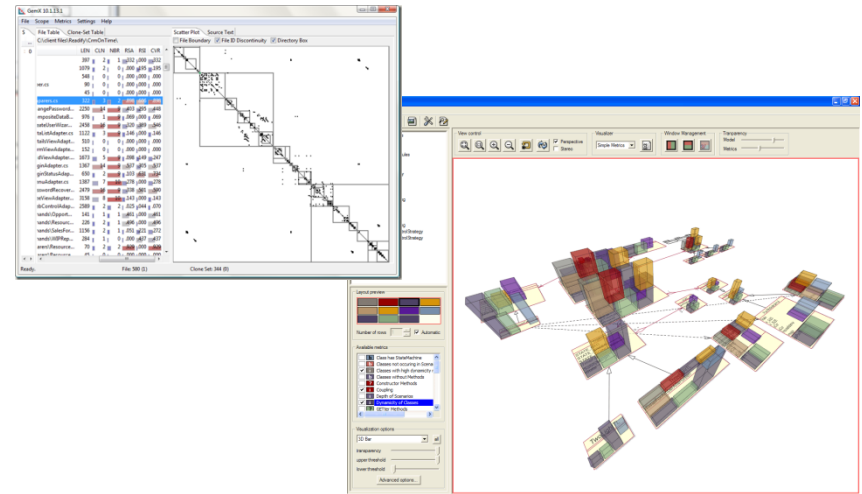# Model transformation traceability

Conclusions

Analysis techniques are required

Future Work

- **More analysis techniques**

  - **Code clone detection**

  - **Visualization of metrics**

  - **…**

- **Improving current analysis techniques**

  - **Dynamic analysis**

  - **Coverage on model level**

Acknowledgements

- **Marcel van Amstel and Luc Engelen for participating in this research**

- **Danny Holten for the visualizations**

- **Paul Klint for providing the stimulating environment**

  and his back to the basics question:

  "*Is dat nu wel zo*?"

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Questions

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