Graphical modelling

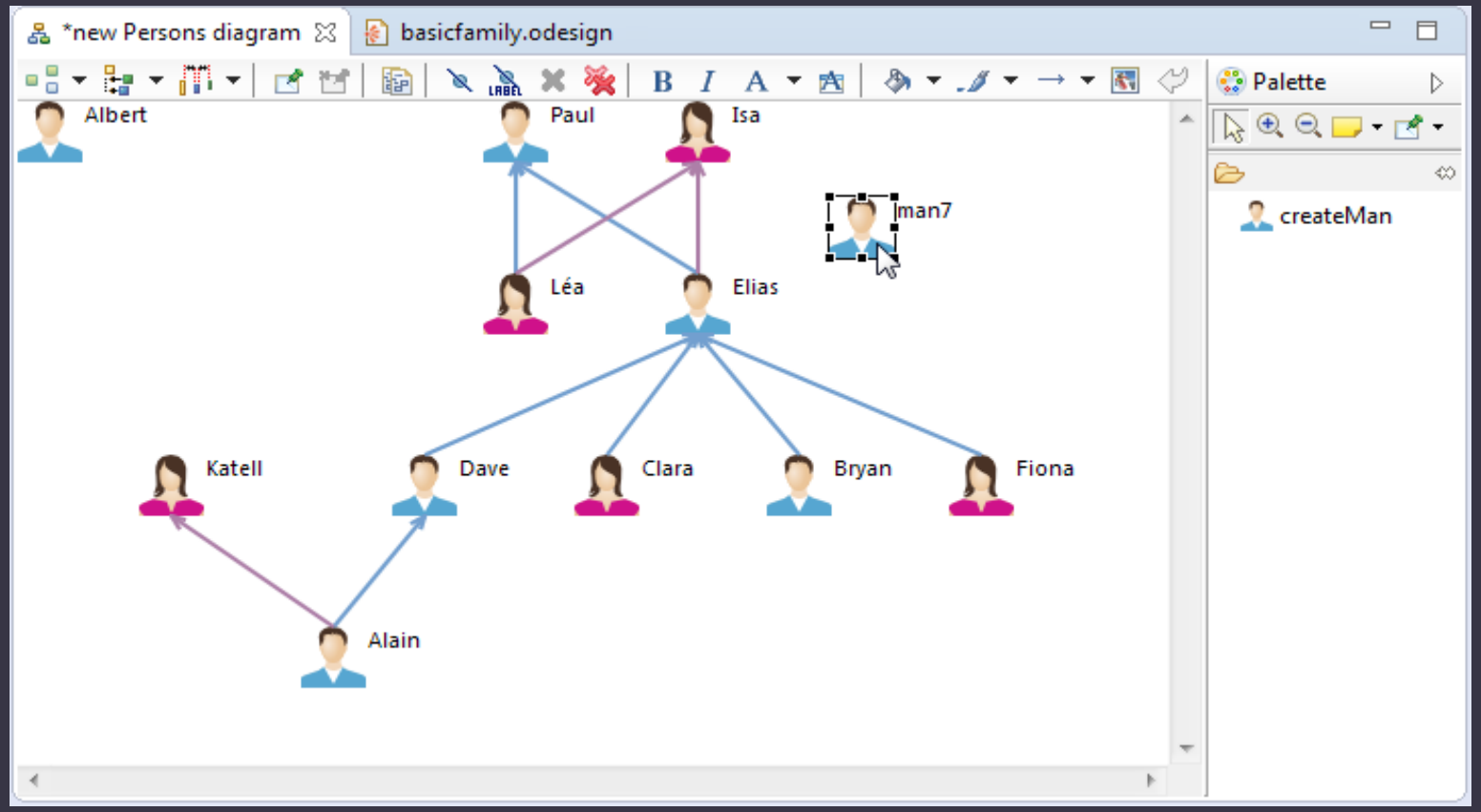
THE SIRIUS FRAMEWORK

0. Overview

1. Introduction
2. Sirius architecture
3. Features and capabilities
4. Comparison
5. Case study

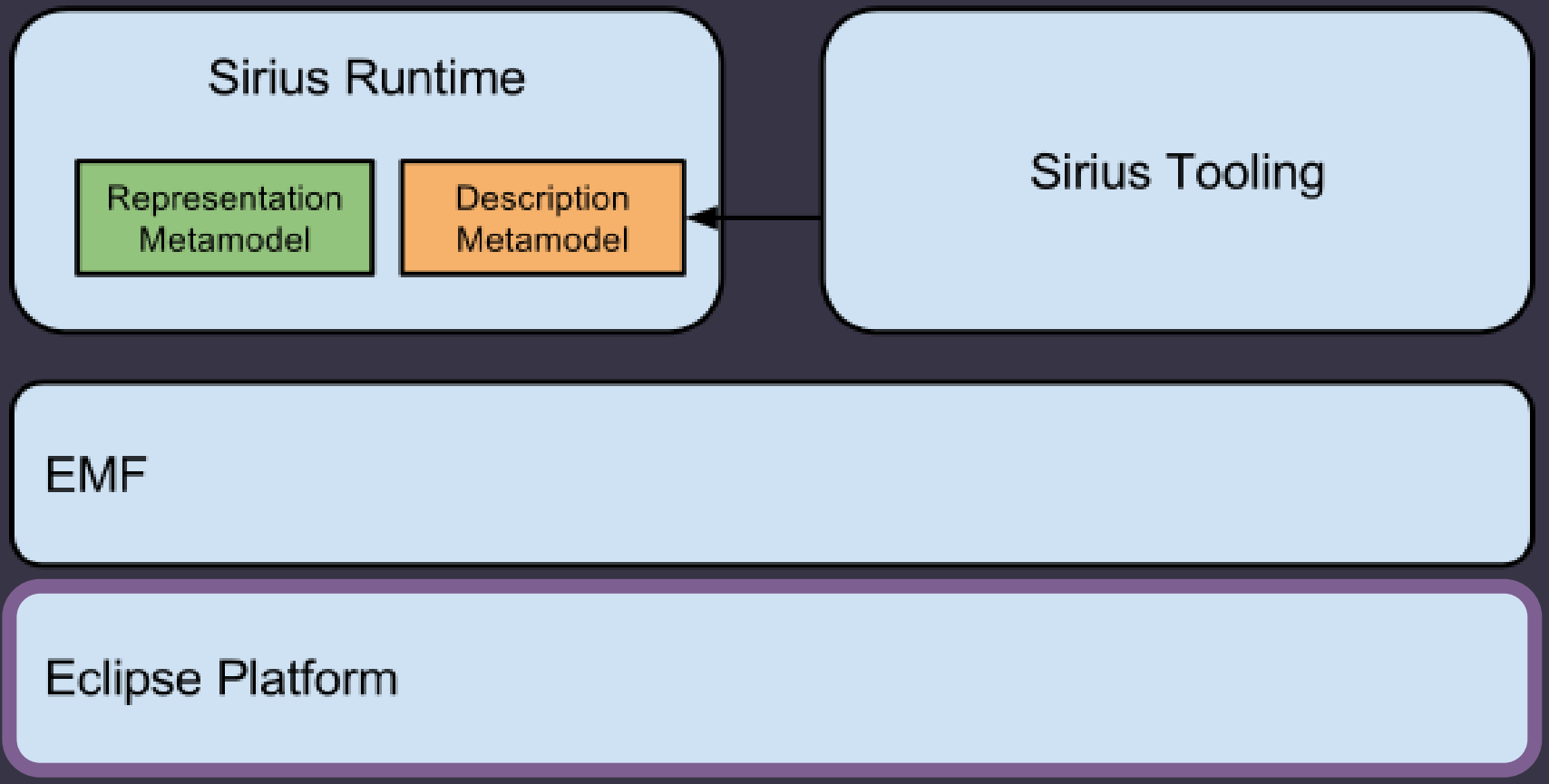
1. Introduction

Sirius[1]



1. http://www.eclipse.org/sirius/

2. Sirius architecture



2. https://www.eclipse.org/sirius/doc/developer/Architecture_Overview.html
3. https://www.eclipse.org/forums/index.php/t/1070145/

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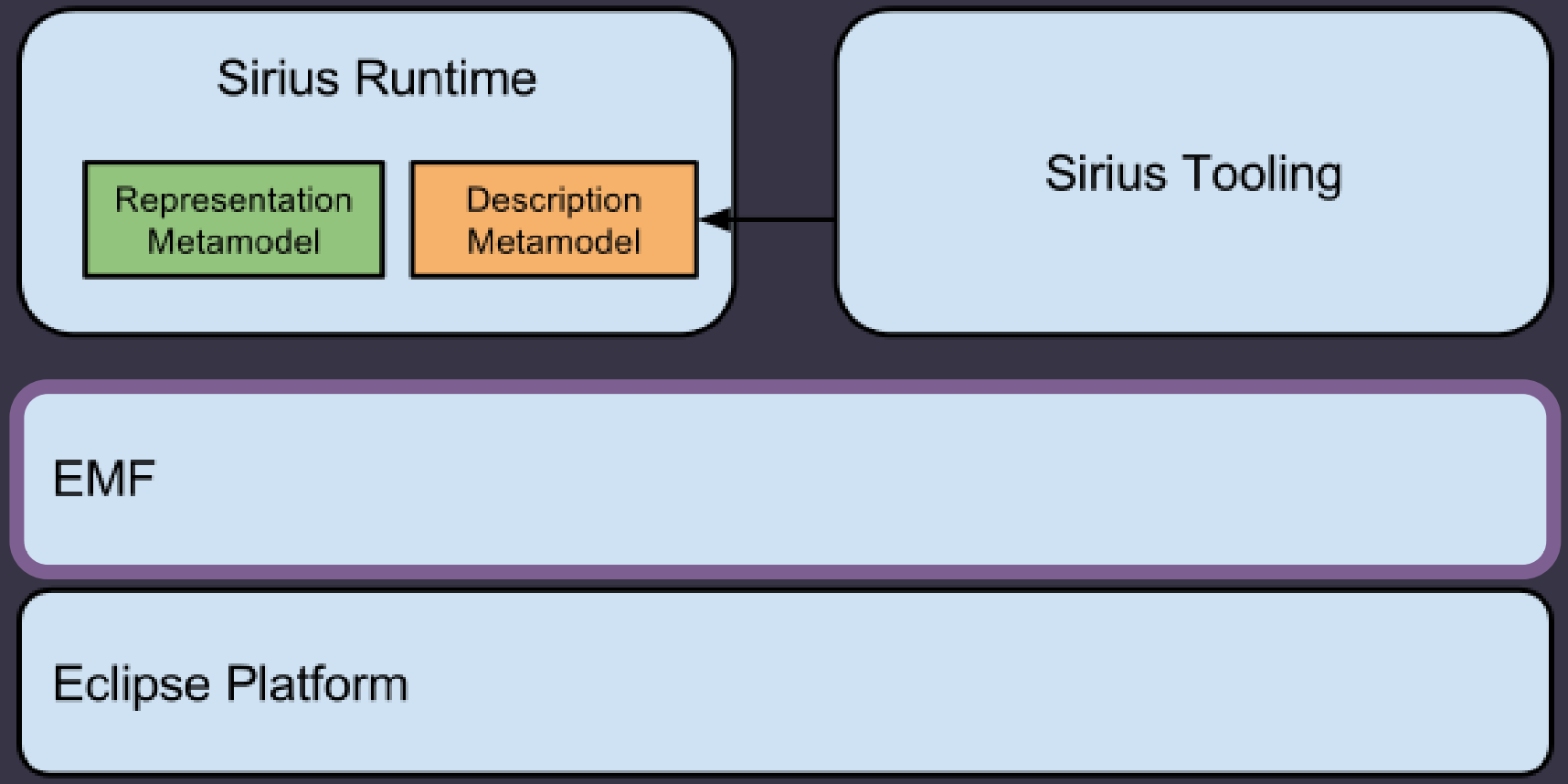

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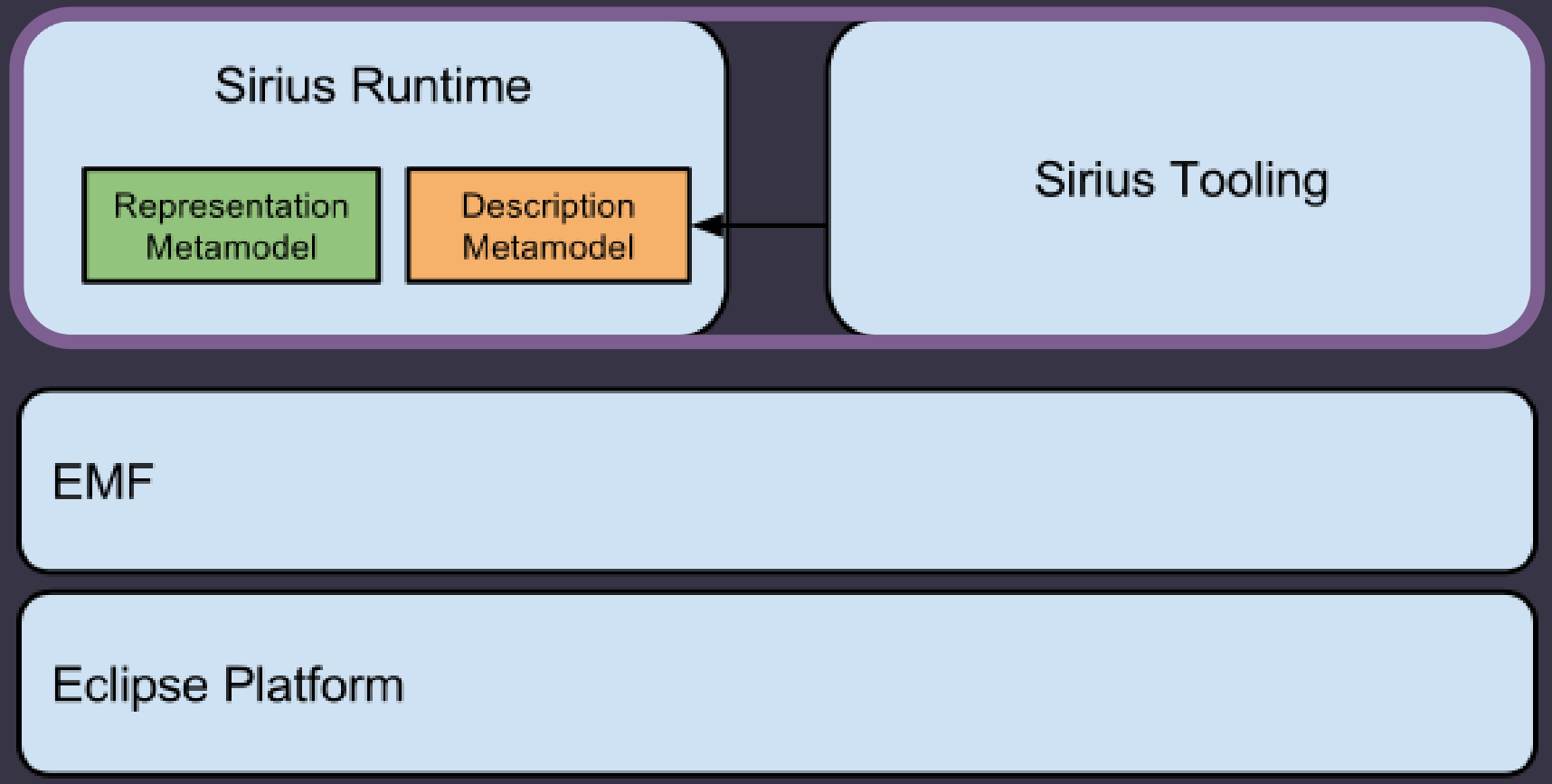

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3. Features and capabilities

Built in representations[4]:

- **Diagrams**
- **Sequence diagrams**
- **Tables**
- **Trees**
- **Properties view**

4. https://www.eclipse.org/sirius/doc/specifier/Sirius%20Specifier%20Manual.html

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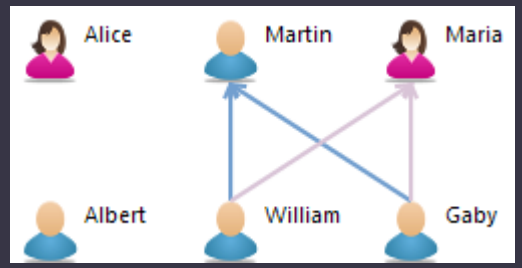
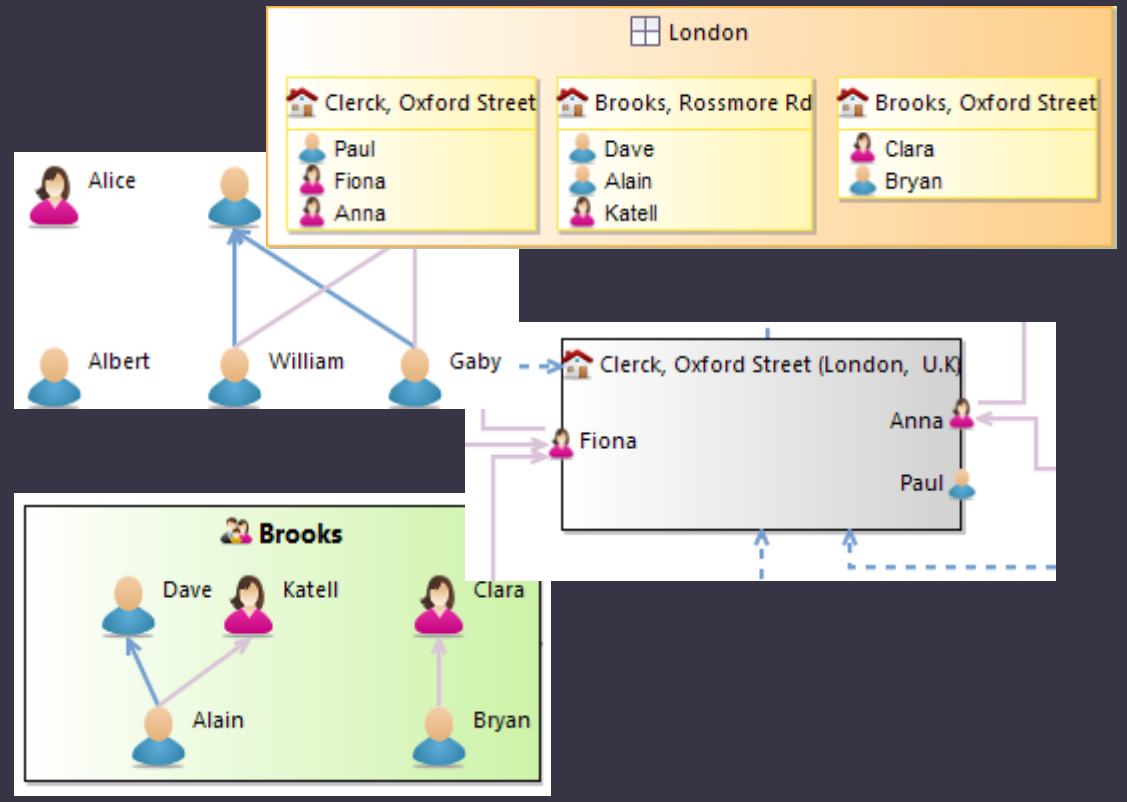


4. https://www.eclipse.org/sirius/doc/specifier/Sirius%20Specifier%20Manual.html

3. Features and capabilities

Diagrams
Layers
Styling
Tools
Filters
Validation



5. https://www.eclipse.org/sirius/doc/specifier/diagrams/Diagrams.html

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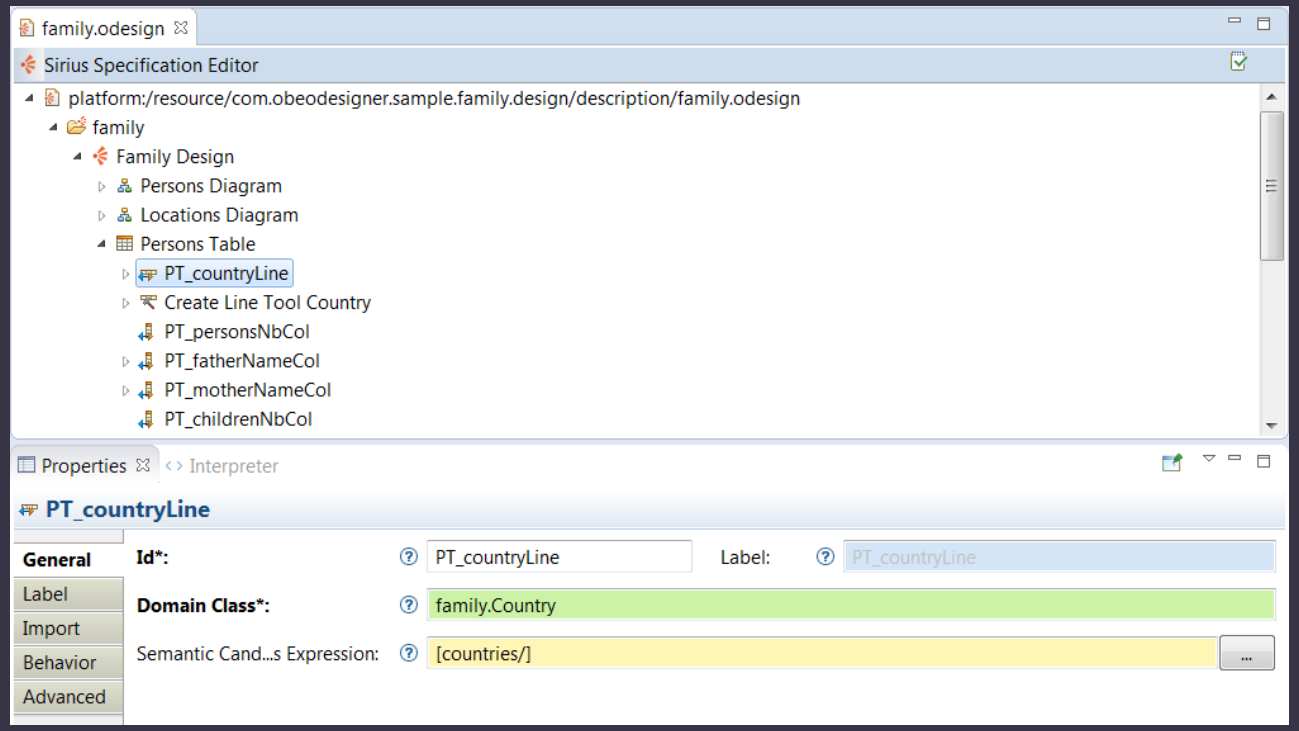
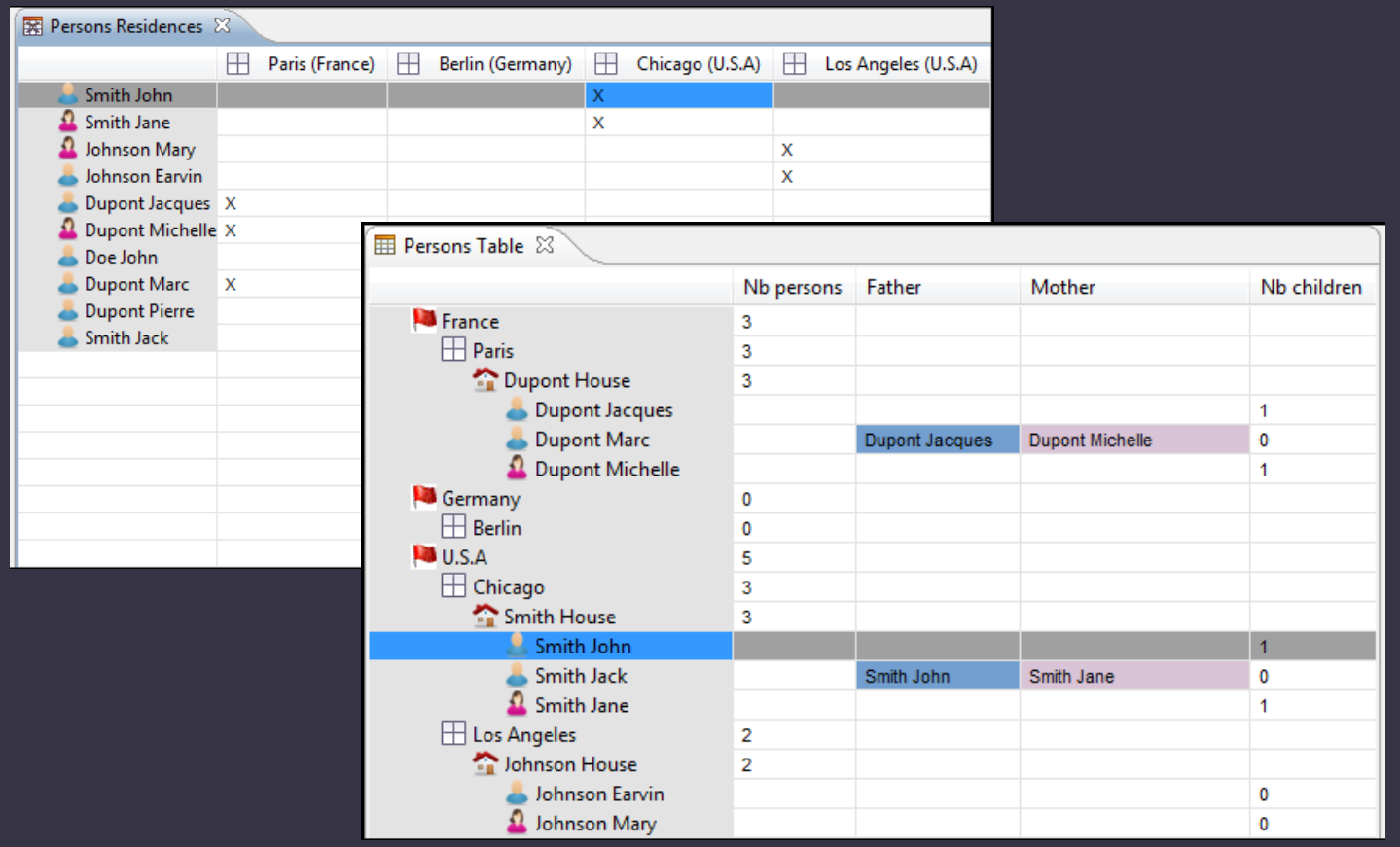


4. https://www.eclipse.org/sirius/doc/specifier/Sirius%20Specifier%20Manual.html

3. Features and capabilities

Tables Edition Tables
Cross Tables



6. https://www.eclipse.org/sirius/doc/specifier/tables/Tables.html

3. Features and capabilities

Built in representations[4]:

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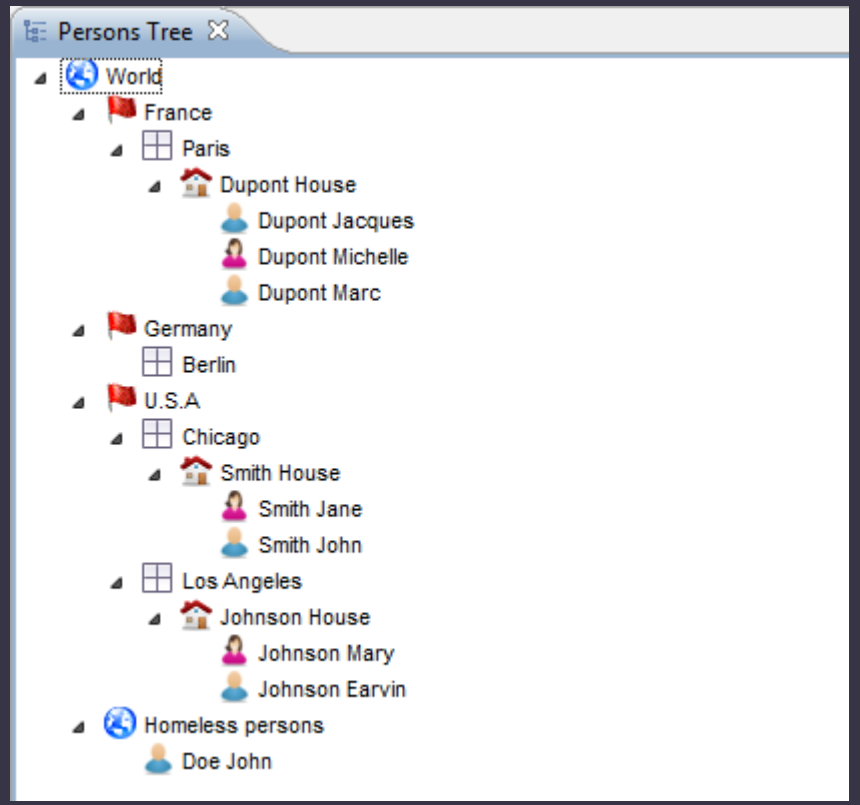
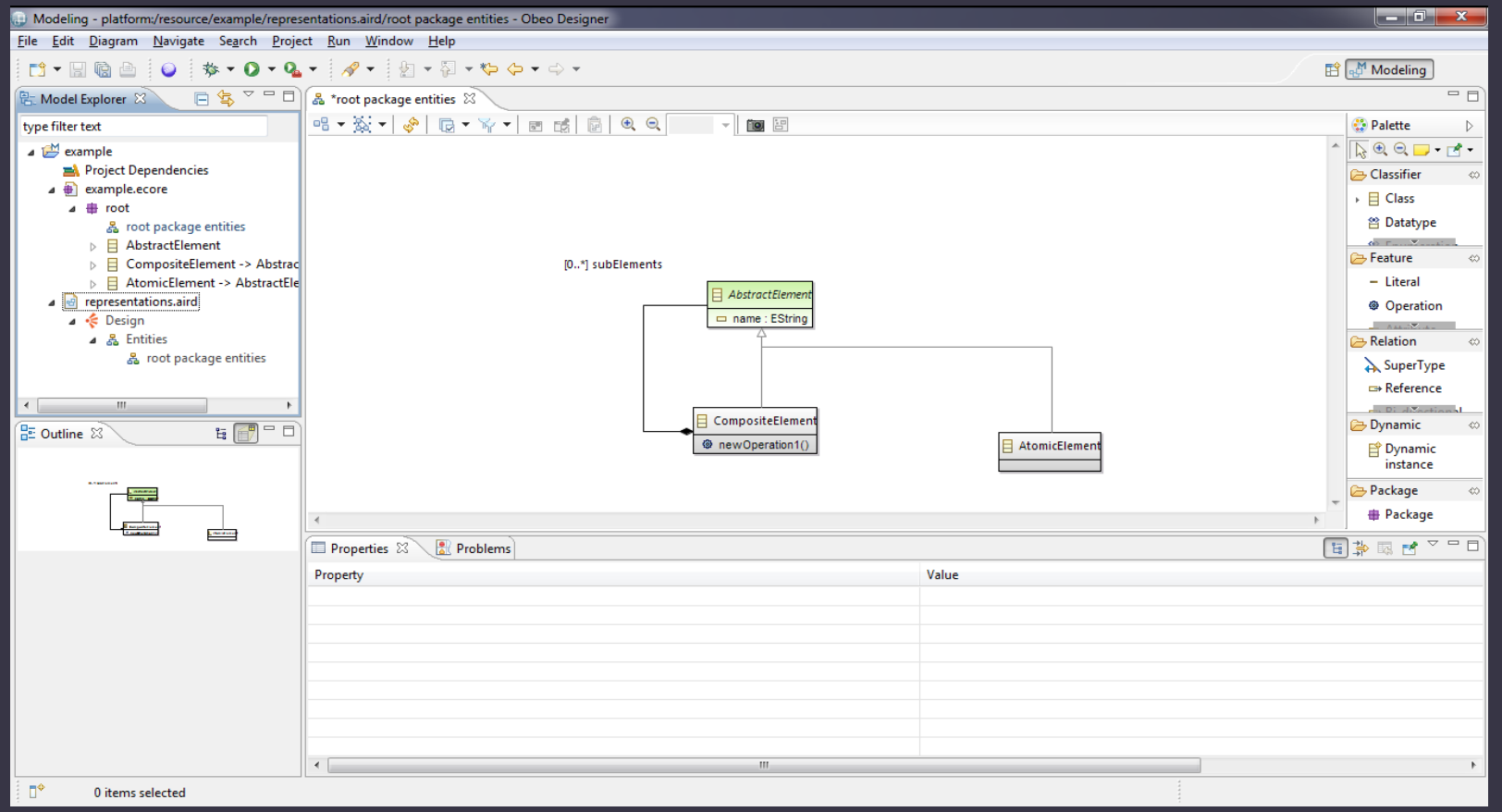


4. https://www.eclipse.org/sirius/doc/specifier/Sirius%20Specifier%20Manual.html
7. https://www.eclipse.org/sirius/doc/specifier/trees/Trees.html

3. Features and capabilities

General overview:



3. Features and capabilities

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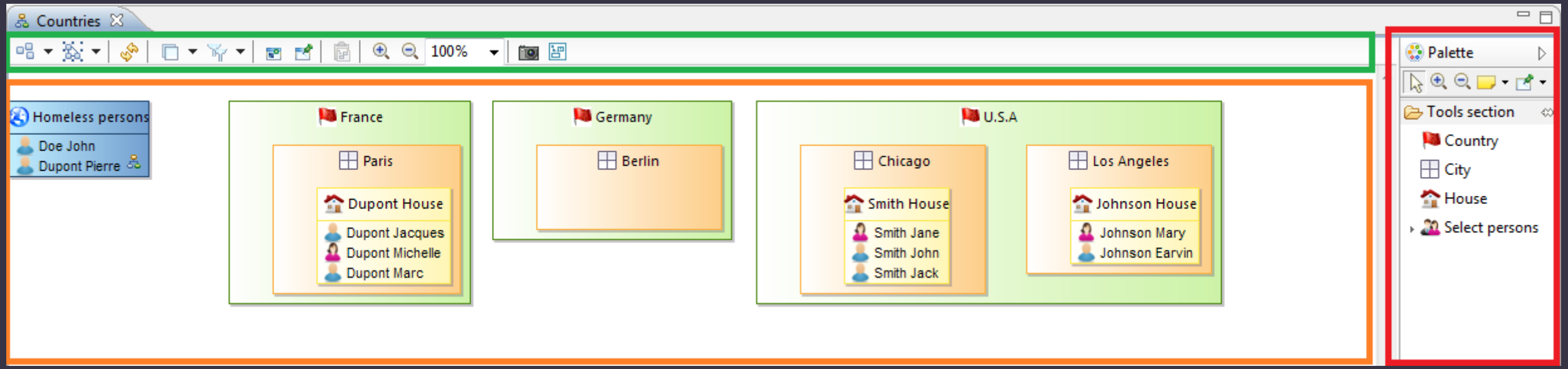


4. Comparison

Sirius

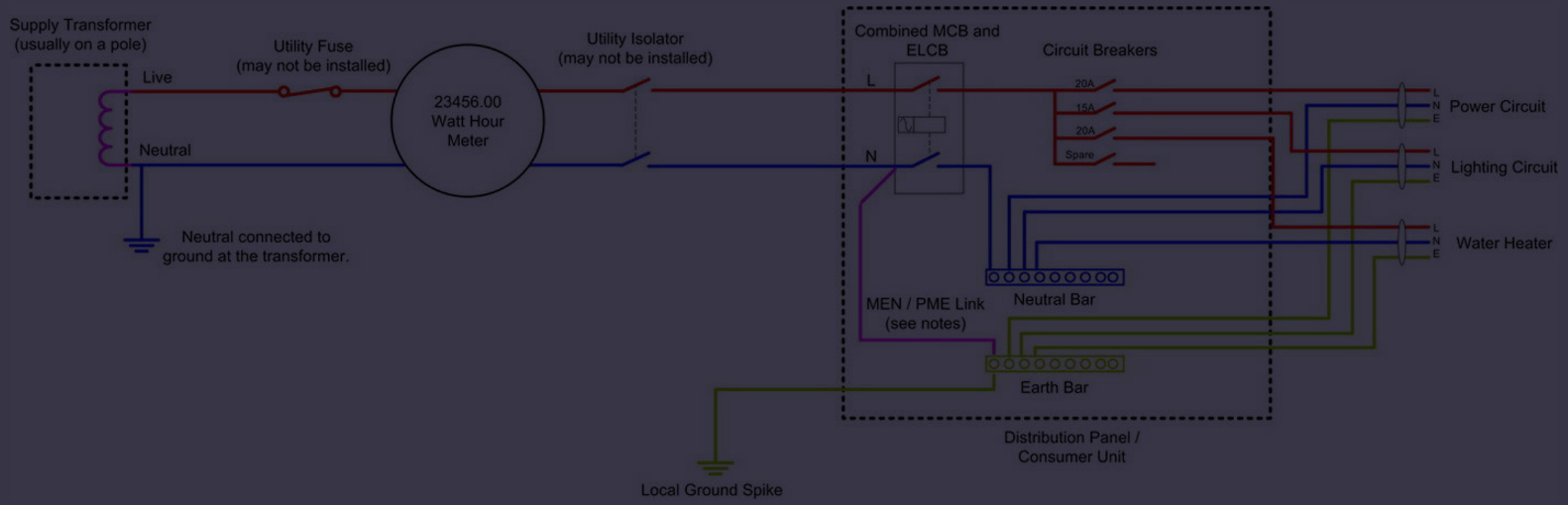
- Eclipse
- Can draw on many Eclipse plugins
- Extendable because of API
- Fast way to edit
- Higher entry point

AToMPM

- Node.js
- Standalone bootstrapped
- Extendable with models
- Uncommon shortcuts / Custom UI
- Easy first steps

5. Case study

Electrical systems



5. Case study Electrical Systems

Elements

- Cables
- Switches
- Lights
- Junction boxes
- Sockets
- …

5. Case study Electrical Systems

Sirius?

- Suitable for multiple views, representations
- Balanced use of Sirius capabilities
- Requirement checking possible

5. Case study Electrical Systems

A.R.E.I[8,9,10,11]

8. http://economie.fgov.be/nl/consument/Energie/Elektriciteit/Controle_installations/#.WFG-xlxyxlx
9. http://www.werk.belgie.be/defaultTab.aspx?id=593
10. http://www.belgium.be/nl/huisvesting/bouwen_en_verbouwen/normen_en_veiligheid/elektrische_installaties
11. http://www.epc-platform.be/files/arei-beknopt-vincotte.pdf

5. Case study Electrical Systems

A.R.E.I

- Cable colors
- Short circuit
- Allocated distribution point per wire
- Fuse amperage
- …

8. http://economie.fgov.be/nl/consument/Energie/Elektriciteit/Controle_installations/#.WFG-xlxyxlx
9. http://www.werk.belgie.be/defaultTab.aspx?id=593
10. http://www.belgium.be/nl/huisvesting/bouwen_en_verbouwen/normen_en_veiligheid/elektrische_installaties
11. http://www.epc-platform.be/files/arei-beknopt-vincotte.pdf

5. Case study Electrical Systems

Model transformations and code generation

- Simulator
- Optimization

6. Summary

Sirius built on top of existing structure

Extensive list of features

Comparison of tools

Case study: Electrical systems