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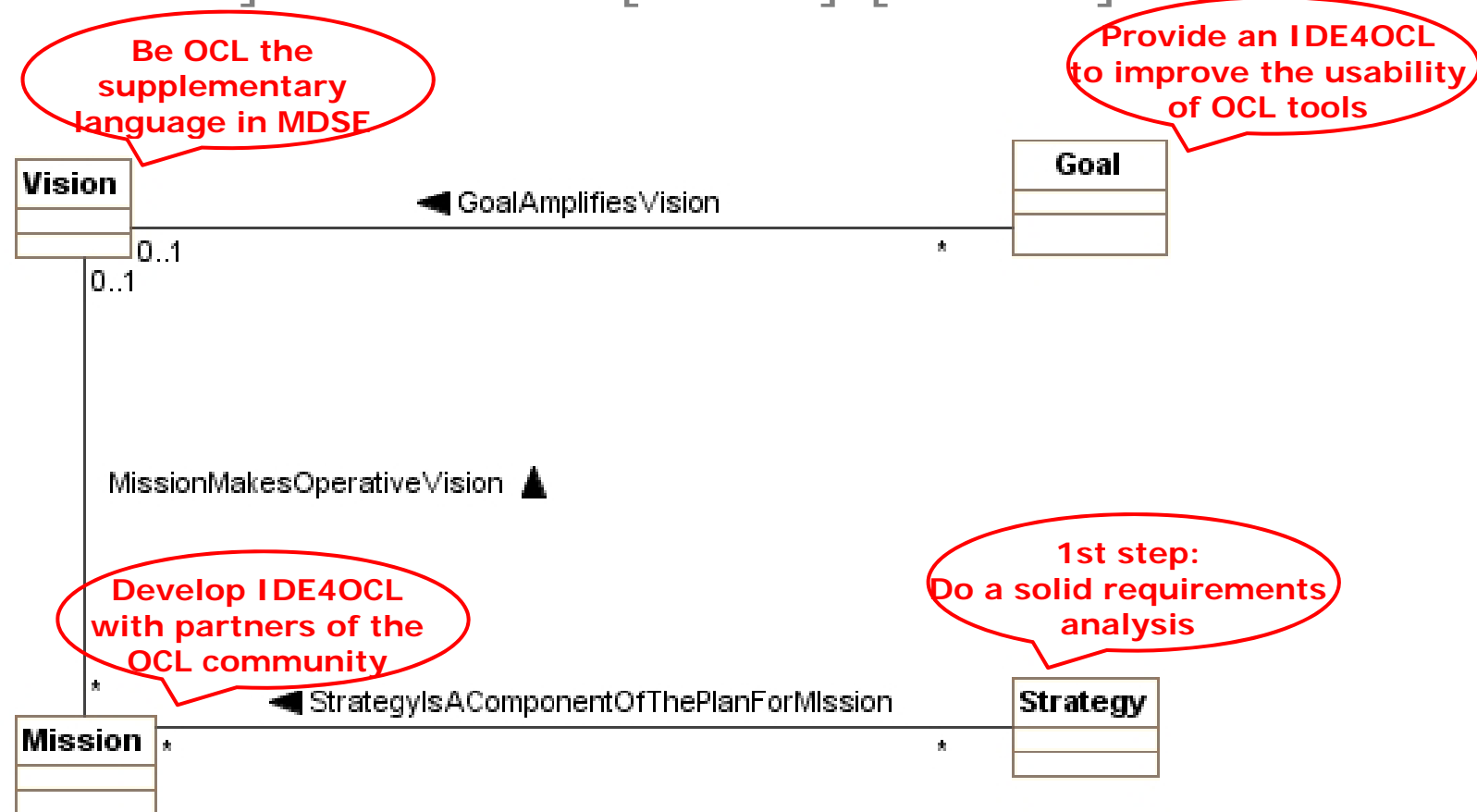


Fakultät Informatik

A Feature Model for an IDE4OCL

Joanna Chimiak-Opoka, Birgit Demuth

[Business] Motivation [Model] [@OMG]



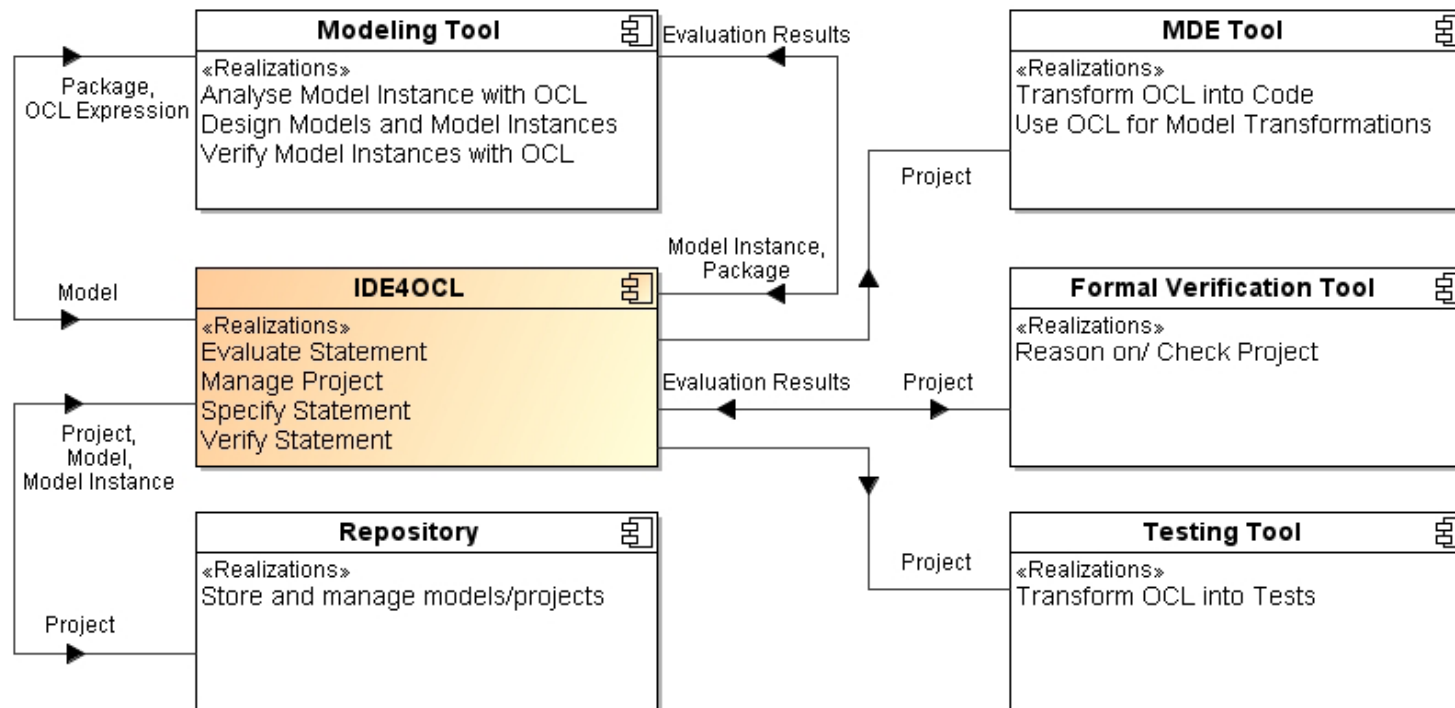
Why is the Requirements Analysis so Important?

Requirements deficiencies
are the prime source of
project failures.

(Glass' law)

[Endres, Rombach: A Handbook of Software and Systems Engineering.
Empirical Observations, Laws and Theories. 2003]

The OCL Tool Landscape



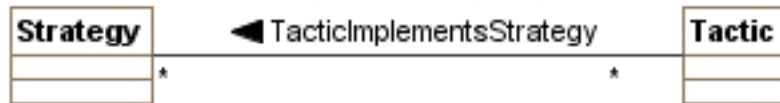
Predefined Features and Use Cases

	Association End Navigability ...	Auto Indentation [Features:::...	Autocomplete [Features:::Pre...	Basic Editing [Features:::Pred...	Code Folding [Features:::Pred...	Collaborative Editing [Feature...	Debugging [Features:::Predefi...	Document Interface [Feature...	Hybrid OCL/MOF View [Featu...	Macro Mechanism [Features::...	Name Resolution [Features:::...	Profiler [Features:::Predefined]	Refactoring Support [Feature...	Reuse Support [Features:::Pr...	Statement Coverage [Featur...	Statement Element Browser [...	Static Statement/Specificatio...	Symbol Database [Features:::...	Syntax Highlighting [Features...	Template Support [Features::...	Visibility and Lexical Scoping ...
Use Cases	4	1	1	1	1	2	2	1	4	1	2	3	1	1	1	3	1	1	1	2	1
Verify Statement	/								/							/					
Specify Statement	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Manage Project	/					/			/		/	/								/	
Evaluate Statement	/						/		/		/				/						

Requirements Analysis Strategy

1st step:
Do a solid requirements
analysis

Survey about
predefined features



Online Survey

IDE4OCL: evaluation of the collected features - Mozilla Firefox

Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe

http://squam.info/survey/index.php?sid=11161&l: Google

IDE4OCL: evaluation of the c...

IDE4OCL: evaluation of the collected features

The survey is based on the [OCL Workshop](#) paper on "[Requirements Analysis for an Integrated OCL Development Environment](#)" by Joanna Chimiak-Opoka, Birgit Demuth, Darius Silingas, and Nicolas F. Rouquette. The aim of this survey is to investigate perceived completeness and adequacy of the collected set of features. This survey consists of the following parts: (1) personal data information, (2) evaluation of the collected features, (3) proposed extensions of the set of features and (4) general feedback-

You must be registered to complete this survey
You may register for this survey if you wish to take part.
Enter your details below, and an email containing the link to participate in this survey will be sent immediately.

First name:

Last name:

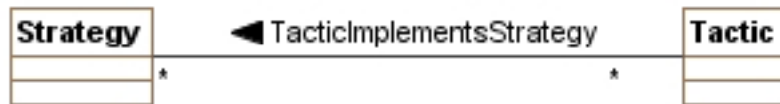
Email address:

Security question: 2 + 55 =

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Requirements Analysis Strategy

1st step:
Do a solid requirements
analysis

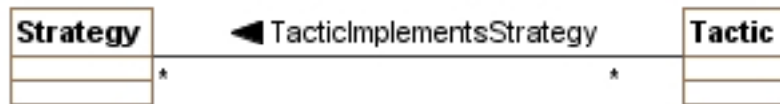


Survey about
predefined features

Evaluation of the
survey results

Requirements Analysis Strategy

1st step:
Do a solid requirements
analysis



Survey about
predefined features

Evaluation of the
survey results

Consolidation of
proposed features

Proposed Features

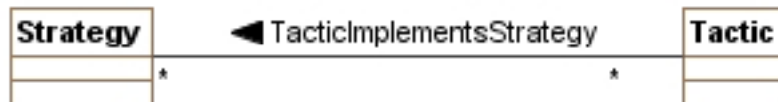
- Batch Mode
- Documentation Specification and Generation
- Error Handling
- Interfaces to Other Tools
- OCL and Model Perspective
- OCL Compliance (syntax, XMI, evaluation)
- OCL Testing
- Scalability (large models, large collections of objects)
- Support of Libraries
- Support of Modularisation (language, OCL packages)
- Syntax and Semantics Extensions
- Variability (metamodels, technical space)
- Version Management

Proposed Features and Use cases

	Batch Mode [Features::Proposed]	Documentation Specification and Generation ...	Error Handling [Features::Proposed]	Interfaces to other Tools [Features::Proposed]	OCL and Model Perspective [Features::Propo...	OCL Compliance [Features::Proposed]	OCL Testing [Features::Proposed]	Scalability [Features::Proposed]	Support of Libraries [Features::Proposed]	Support of OCL Modularisation [Features::Pr...	Syntax and Semantics Extensions [Features::...	Variability of Metamodels and Models [Featur...	Version Management [Features::Proposed]
[-] Use Cases	2	2	3	4	4	4	4	4	4	4	4	4	1
[-] Evaluate Statement	/		/	/	/	/	/	/	/	/	/	/	
[-] Manage Project		/		/	/	/	/	/	/	/	/	/	/
[-] Specify Statement		/	/	/	/	/	/	/	/	/	/	/	
[-] Verify Statement	/		/	/	/	/	/	/	/	/	/	/	

Requirements Analysis Strategy

1st step:
Do a solid requirements
analysis



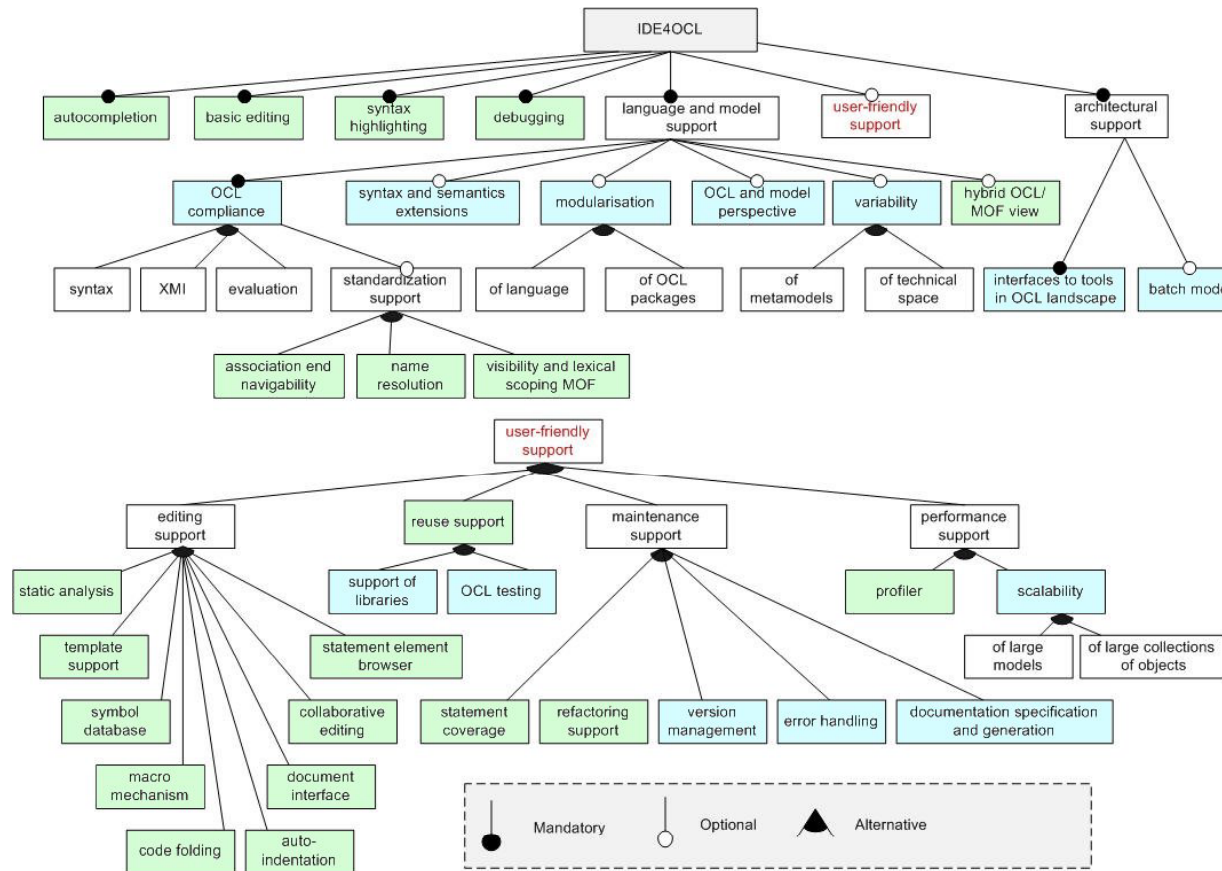
Survey about
predefined features

Evaluation of the
survey results

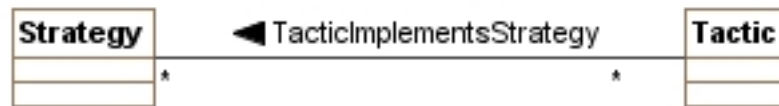
Consolidation of
proposed features

Proposal of an
feature model

Feature Model



Further Steps



Survey about
proposed features &
feature model

Consolidation
of the feature model

Discussion about
shared common APIs?

Foundation of an
IDE4OCL Open Source
project?

How to proceed?

Thank you for your Attention and Discussions!

It's funny when stakeholders want something because it could be a "nice" feature.



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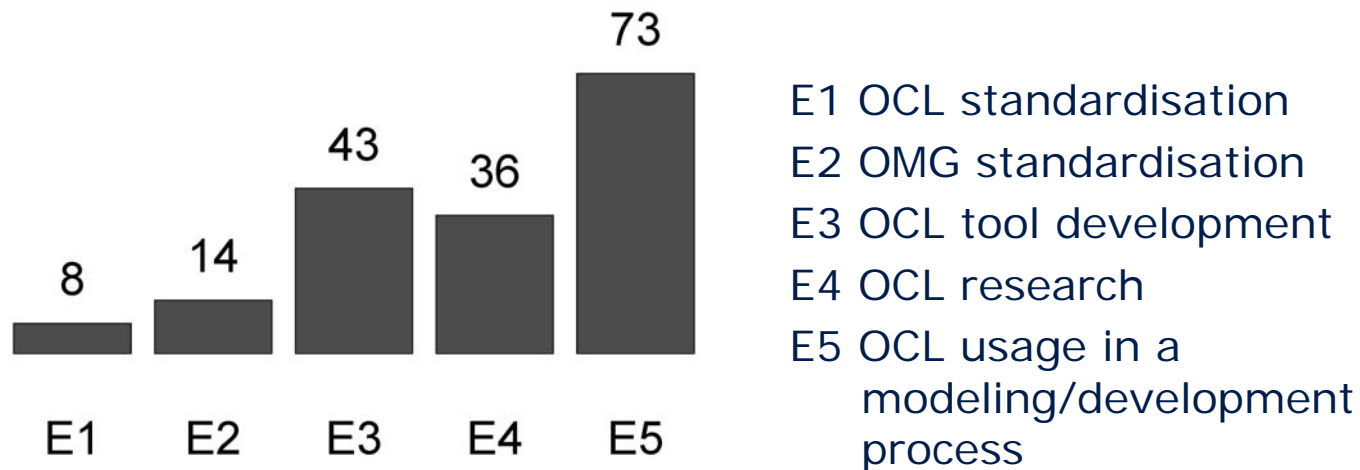


QE
QUALITY ENGINEERING

Backup Slides

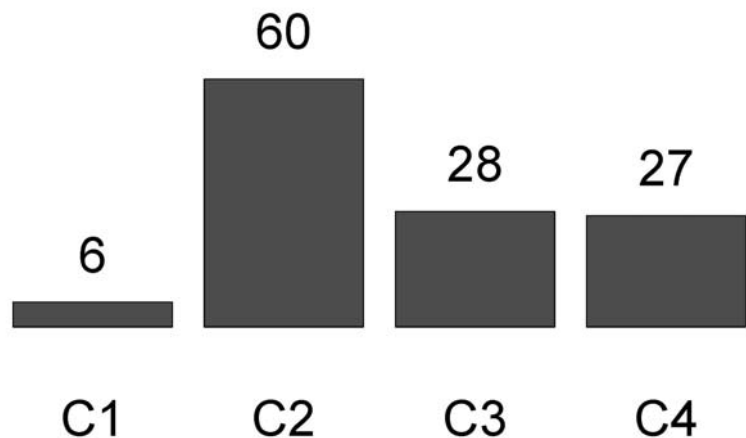
Respondents in the Survey (Experience)

Experience (n=98)



Respondents in the Survey (Context)

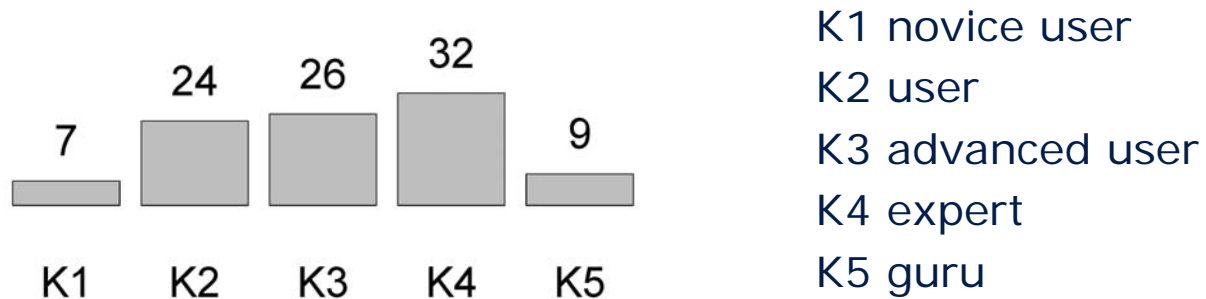
Context (n=98)



- C1 work for OMG
- C2 work in a research institution
- C3 work in a commercial company
- C4 being a student

Respondents in the Survey (Knowledge)

Knowledge (n=98)



Codierung of Predefined Features

Association End Navigability (1)

Autocompletion (2)

Auto-indentation (3)

Basic Editing (4)

Code Folding (5)

Collaborative Editing (6)

Debugging (7)

Document Interface (8)

Hybrid OCL/MOF View (9)

Macro Mechanism (10)

Name Resolution (11)

Profiler (12)

Refactoring Support (13)

Reuse Support (14)

Statement Element Browser (15)

Statement Coverage (16)

Static Statement/Specification Analysis (17)

Symbol Database (18)

Syntax Highlighting (19)

Template Support (20)

Visibility and Lexical Scoping MOF (21)

Importance and Urgency Classification

Importance	Urgency		
	high	medium	low
high	2, 4, 7, 19	11	
medium	3, 13	1, 8, 9, 12, 14, 15, 17, 18, 20	21
low		5	6, 10, 16

mandatory features

