This knowledge is so complicated, an introductory model is necessary.

Abstract layers
Generic elements

The particular interpretation
visualization imposed

Flexible internal representation

InterResp: an experimental modeling tool for multidimensional software knowledge

Evaluation performed on a model of a well-known information system

InterResp attributes
Parameters for InterResp
Cross validation
Baseline comparison

Two perspectives:
1. Efficiency of searching for software knowledge
2. Comprehension of software knowledge

Ability to answer selected questions about the model
Abstract Layers and Generic Elements as a Basis for Expressing Multidimensional Software Knowledge

Valentino Vranić and Adam Neupauer

Institute of Informatics, Information Systems and Software Engineering

vranic@stuba.sk
fiit.sk/~vranic
Code
The knowledge is in relationships: an interrelating model is necessary
Abstract layers

Generic elements

No particular interpretation nor visualization imposed

Flexible internal representation
Common 2D visualization
3D layered visualization
http://uml3d.herokuapp.com/
InterSKnow: an experimental modeling tool for multidimensional software knowledge
Evaluation performed on a model of a web based insurance system

InterSKnow outperforms Enterprise Architect
in interrelating heterogeneous software artifacts
Evaluation performed on a model of
a web based insurance system

InterSKnow outperforms
Enterprise Architect
in interrelating
heterogeneous software artifacts

Tasks assessed by:
- Number of context switches
- Number of files opened
- Time

Two perspectives:

1. Efficiency of searching for software knowledge
2. Comprehension of software knowledge

Ability to answer selected questions about the model
Software development involves working with large amounts of heterogeneous artifacts forming multidimensional software knowledge.

The knowledge is in relationships: an interrelating model is necessary.

A flexible internal representation based on abstract layers and generic elements enables to cope with varying interpretation and visualization of the interrelating model.

Evaluation indicates that InterSKnow outperforms Enterprise Architect in interrelating heterogeneous software artifacts.