

# VU Research Portal

## Ontology-based Software Architecture Documentation

de Graaf, K.A.

2015

### **document version**

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

### **citation for published version (APA)**

de Graaf, K. A. (2015). *Ontology-based Software Architecture Documentation*. Proefschriftmaken.nl.

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

### **Take down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

### **E-mail address:**

[vuresearchportal.ub@vu.nl](mailto:vuresearchportal.ub@vu.nl)



# Ontology-based Software Architecture Documentation

Klaas Andries de Graaf

Ontology-based Software Architecture Documentation  
Klaas Andries de Graaf

The knowledge in software architecture documentation should be retrieved quickly and correctly, to prevent wasted time and errors in software projects. Retrieving knowledge from file-based documents is often difficult. Can we improve knowledge retrieval efficiency and effectiveness using ontology-based architecture documentation? This question guided four years of doctoral research reported in this thesis, which investigates and compares knowledge retrieval from file-based and ontology-based architecture documentation.

This thesis details on;

- An ontology-based documentation approach.
- An ontology engineering approach.
- Industrial case studies.
- Search behaviour analysis.
- Experimental evaluation of knowledge retrieval efficiency and effectiveness.
- An analysis of how knowledge organisation affects knowledge retrieval.
- Cost-benefit analysis.
- Qualitative evaluation via surveys.

