

On the design of enterprise ontology-driven software development

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Propositions

Belonging to the doctoral thesis entitled

‘On the Design of Enterprise Ontology-Driven Software Development’

by Marien R. Krouwel, Maastricht University, November 3, 2023

1. DEMO models alone are not enough to generate working enterprise software (this thesis)
2. A ‘complete’ method for enterprise ontology-driven software development should at least comprise a Way of Thinking, a Way of Modeling, a Way of Working, and a Way of Supporting (this thesis)
3. By introducing implementation design decisions into the enterprise model, complexity is moved back to where it originates (this thesis)
4. Software development can be sped up beyond current low-code approaches by adopting enterprise models as a starting point (this thesis)
5. Neither should we overestimate nor should we underestimate the value of a model
6. The biggest issue of current ‘standard’ packages, is that they are too rigid and too customizable at the same time
7. Designing a normalized enterprise is not difficult, the difficulty is in implementing it
8. Avoiding manual steps in the transformation process from requirements to software is the only way to reduce project failure
9. Software engineers benefit from music education
10. Musicians benefit from software engineering education

These propositions are considered defensible and as such have been approved by the supervisors, Prof. dr. A.F. Harmsen and Prof. dr. H.A. Proper.