

Preparing for the first review

Meeting Feb 2012

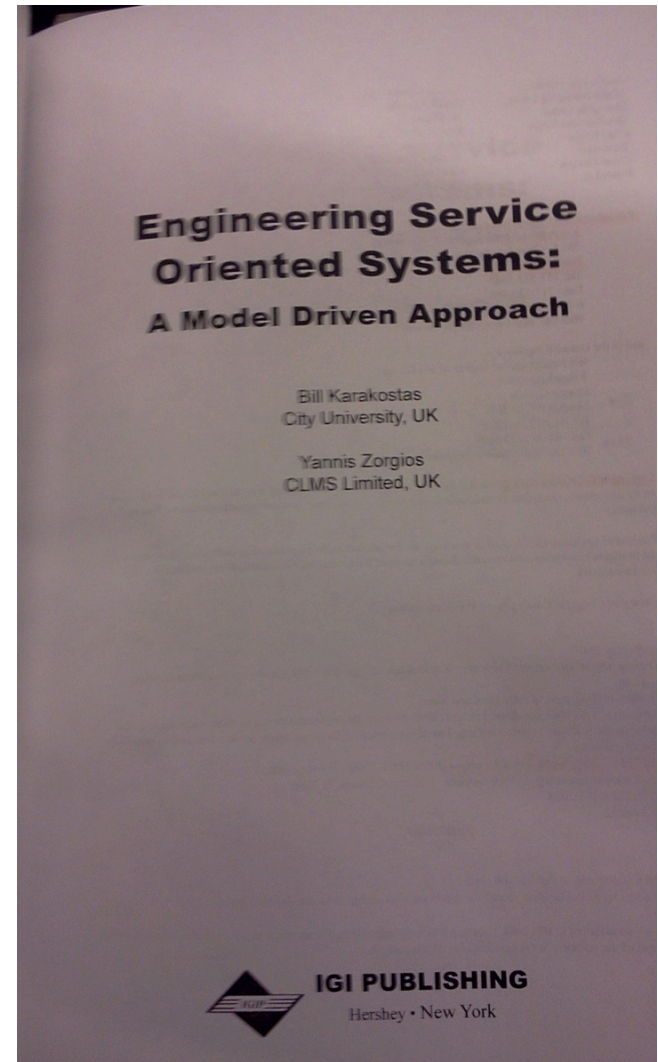
Josef Noll (Movation)

ARTEMIS Call 2010 – SP269317

Expectation

All rights reserved © 2010-2012

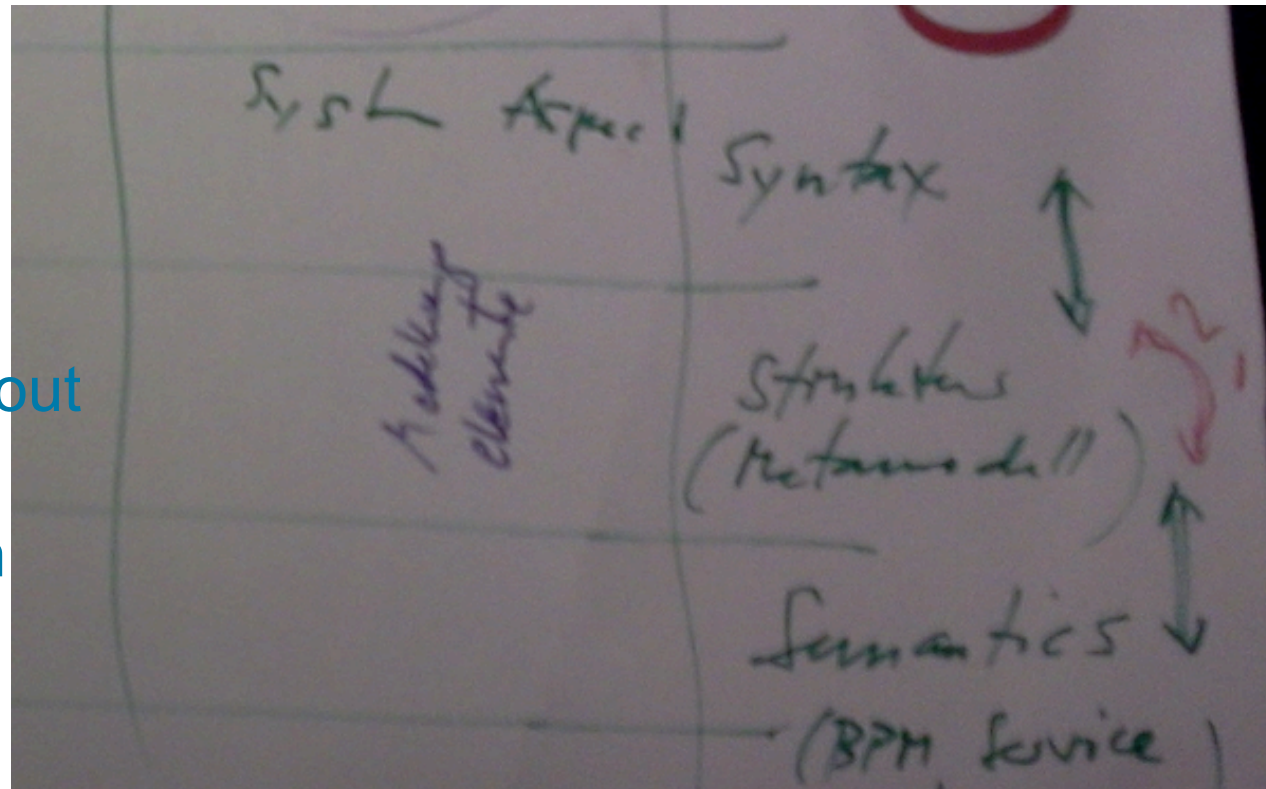
- Expected review is October 2012 (17-19. Oct 2012)
 - 1 out of these days
 - Rome, SelexElsag (?)
- Frank Furrer will be reviewer(?):
 - Expert on formal methods
 - following a.o. approach from Bill Karakostas and Yannis Zorgios
- Major recommendation from our experiences
 - open discussion
 - be sure to have a meaning “why”



- taken from <http://pshield.unik.no/wiki/FinalReview-14Feb2012>
- Some deliverables are really good, e.g. D6.3 and D6.4
 - appreciated that so most of the deliverables are public
 - good value for money, "impressive attitude"
- system approach versus component-based approach
 - pilot to system approach (how?)
 - from demonstrator towards a platform for re-use
 - counteract on the "fragmentation in embedded systems"
- Publish the "breakthrough"
 - power node: "a flagship for the community"
 - cognitive software radio
 - composition

- formal modeling, from Sensor Syntax to Structure (Metamodel) to Semantics (BPM, Service)
- upscaling challenges, from (i) sensors to systems and applications, (ii) from one sector (railway) to other sectors, and (ii) from nSHIELD to the whole world
- establish contacts to other segments, e.g. AutoCars
- System aspects such as configuration and contingency handling
- Create a white paper on SHIELD functionality
- Extend D3.2 CIAA characteristics with non-repudiation and traceability
- Create a demonstrator which really is an "integrated demonstrator", being reuseable for other areas
- have a common glossary, see last part of Terms_and_Definitions, update accordingly and "copy & paste" into the deliverables

- formal methods are a particular kind of mathematically-based techniques for the specification, development and verification of software and hardware systems [Wikipedia]
- Conclusion:
- “applicability to more than one domain.”
- Short description from Christian about Telecom...
- further discussion



- Metrics implementations for SPD “cardinal number”

Challenges

- cardinal number
- applicability in industry

- From Sensor to System

FPGA Power node prototype (SPD)

SPD metrics, Self-recovery from hardware transient faults (through fault-injection), Auto-reconfiguration, Data encryption, Provision of security and privacy services, Hardware data encryption/decryption

Cognitive Radio prototype (SPD)

Threats tolerant transmission

Middleware prototype for composability (SPD)

SPD Audit, Cryptographic Support, Identification and Authentication, Protection of the SPD functionalities, Security Management

Heterogeneous Platform prototype (SPD)

Auto start up on power failure, Auto reconfigurable on software failure, Auto synchronization on software failure, End-to-end secure communication, Mal-user detection, Access control for accessing sensor data

Rail car monitoring system (SPD)

Intrusion awareness, fault-tolerance, data redundancy and diversity