

ML SUPPORTED CODE REVIEW – A ROADMAP FOR THE FUTURE

ROBERT LAGERSTEDT

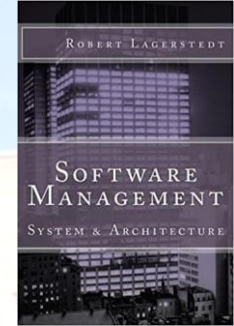
ML supported code review - a roadmap for the future

Content

Before:
"Command and control"
-based review

Now:
"Feedback"
-based review

Next:
"Community-trained feedback"
-based review



▶ **Head of SW Architecture – Bosch Lund**

▶ Previous Experiences

▶ Mobile Industry

– Global Software Architect, CTO Office – Sony Mobile

▶ Medical Diagnostics Industry

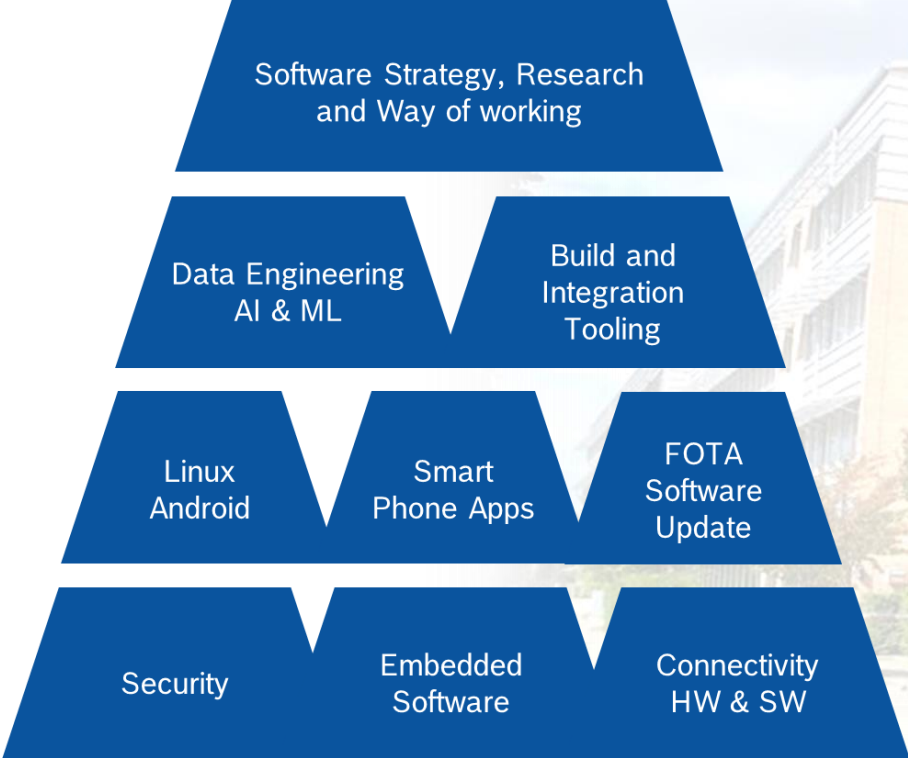
– Lead Software Architect - CellaVision

▶ Military Training Industry

– Developer, Software Architect - Mandator

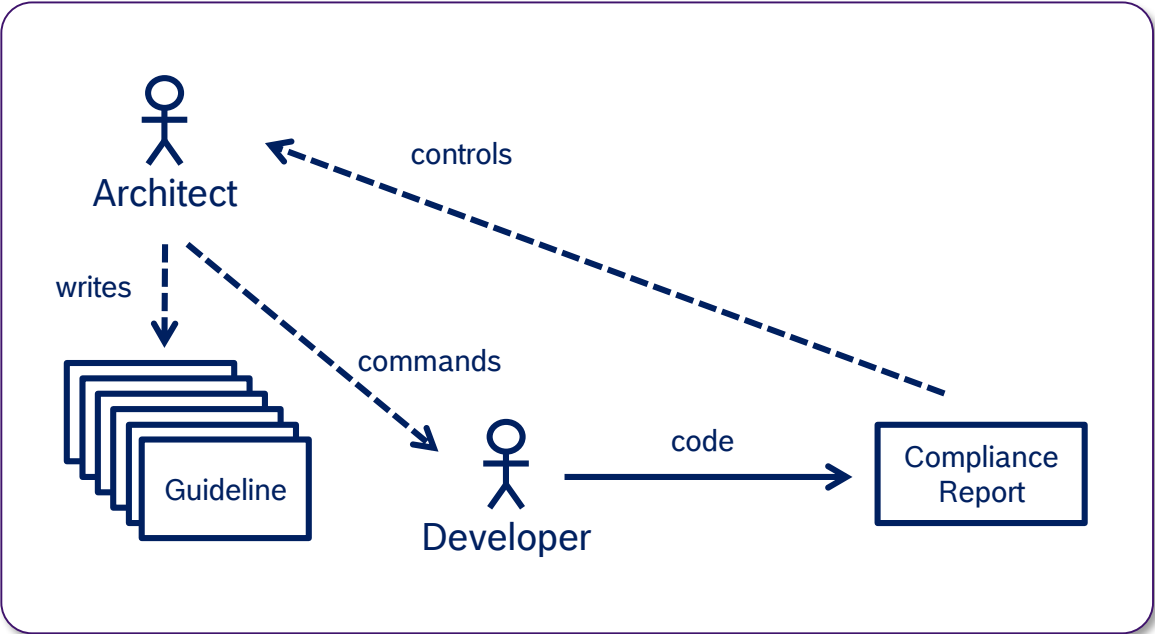
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Bosch Lund – Development site focusing on Software and Connectivity



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Before – "Command and control"-based review

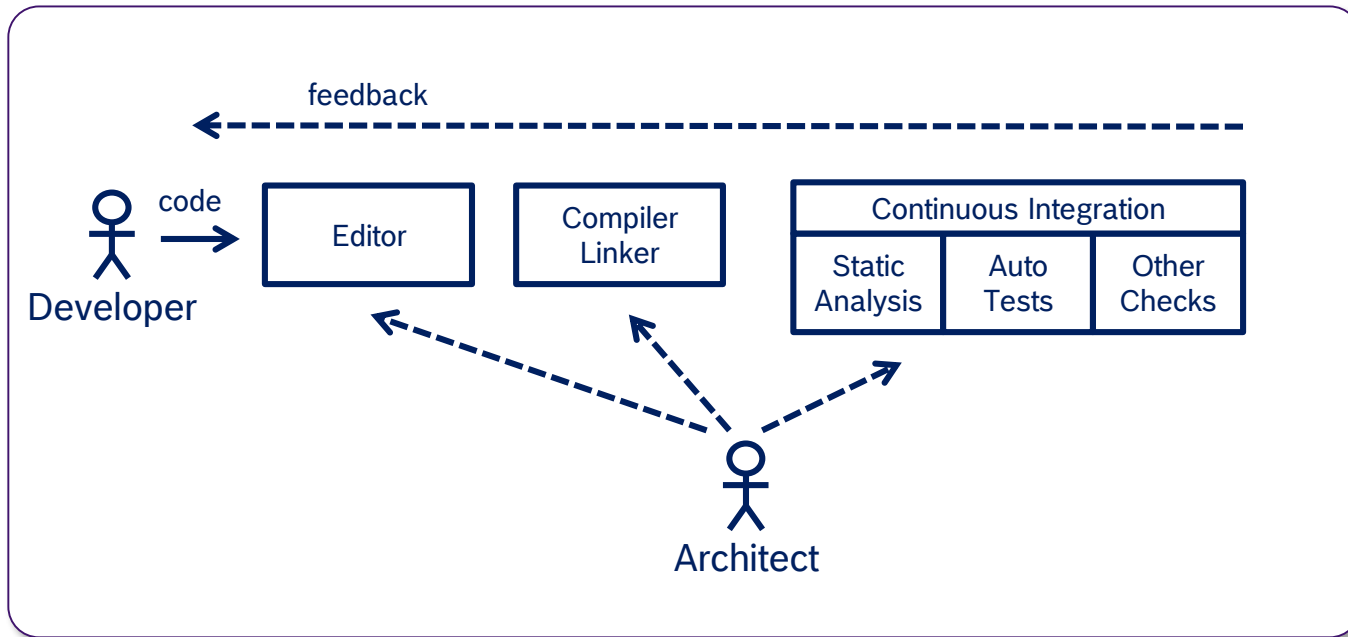


"Using automated tests for communicating and verifying non-functional requirements"
2014 IEEE 1st International Workshop on Requirements Engineering and Testing (RET) - R. Lagerstedt
<https://ieeexplore.ieee.org/document/6908675>

- Guidelines
- Integration Teams
- KPIs
- Directives
- Waterfall
- Reports
- Integration checklists

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Now – "Feedback"-based review



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Automation

Lean

OSS Way of working

OSS License Scans

Agile

Automatic Tests

Contributor / Maintainer

Maintainer Approval

Build on commit

Rule-based tools

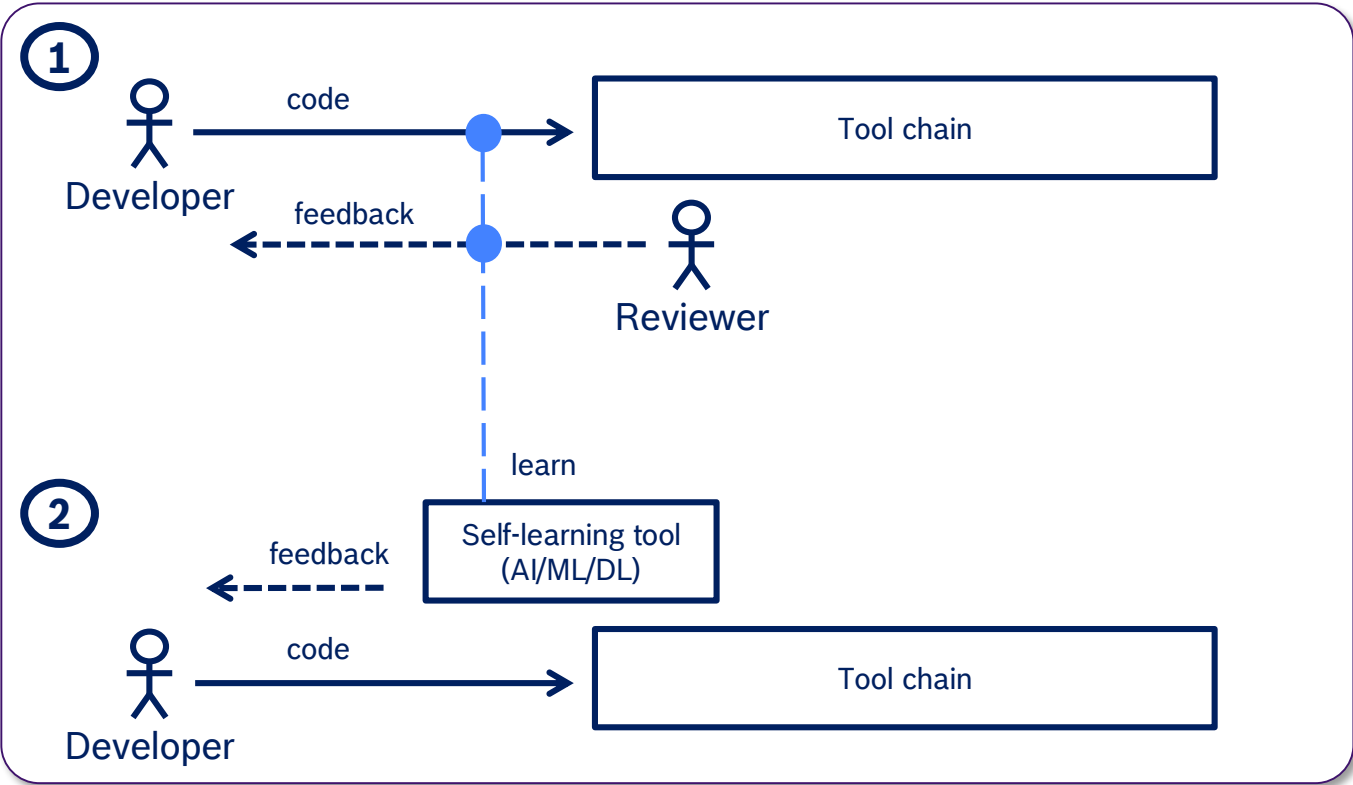
Continuous Integration

A/B Tests

Analytics

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Next – "Community-trained feedback"-based review



Self-learning tools

Deep Learning

GPT-3

Machine Learning

Majority approval

Stakeholder alignment

Knowledge of the community