MSE Portfolio Presentation 3

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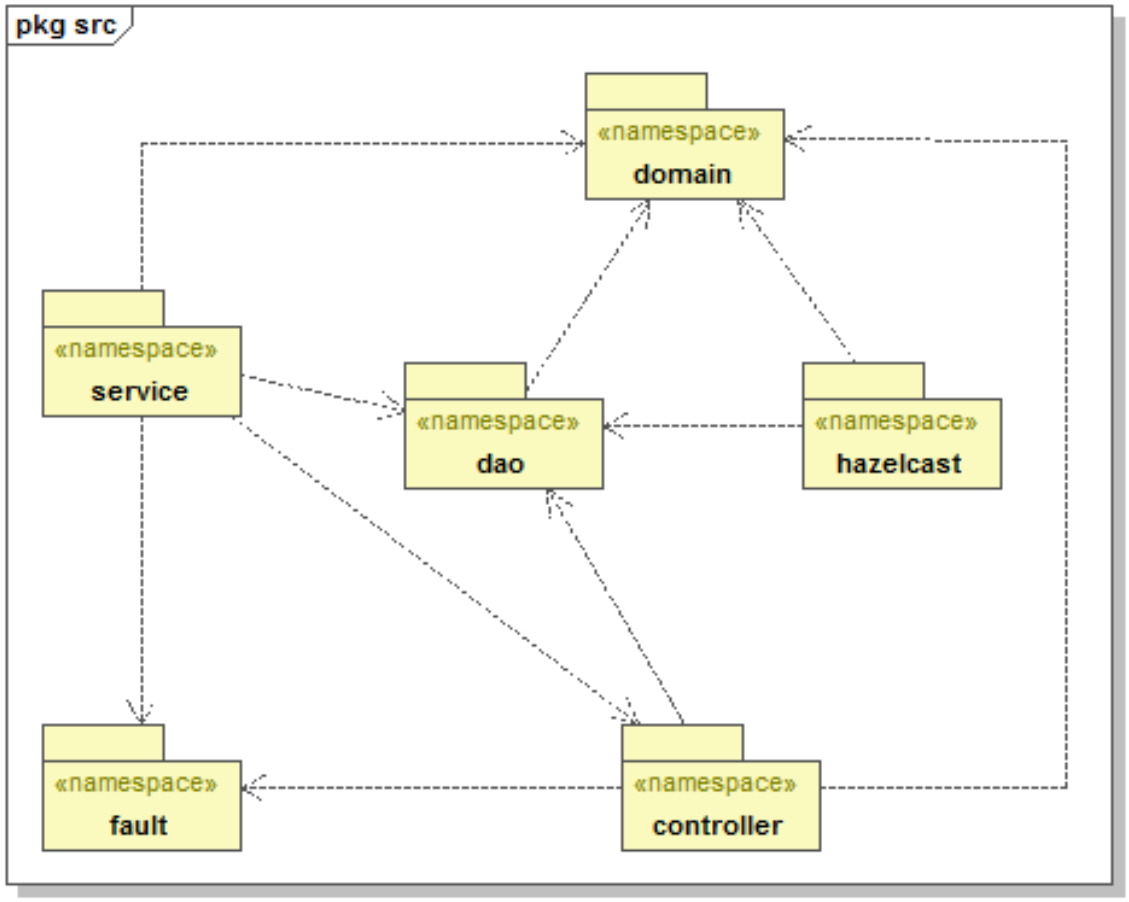
Agenda

- Component Design – Highlights
- Assessment Evaluation
  - Unit testing and code quality metrics
  - Scale test results
- Project Evaluation
  - Effort, Time Breakdown, Actuals vs Estimates
  - Lessons Learned
- Demo
- Q and A

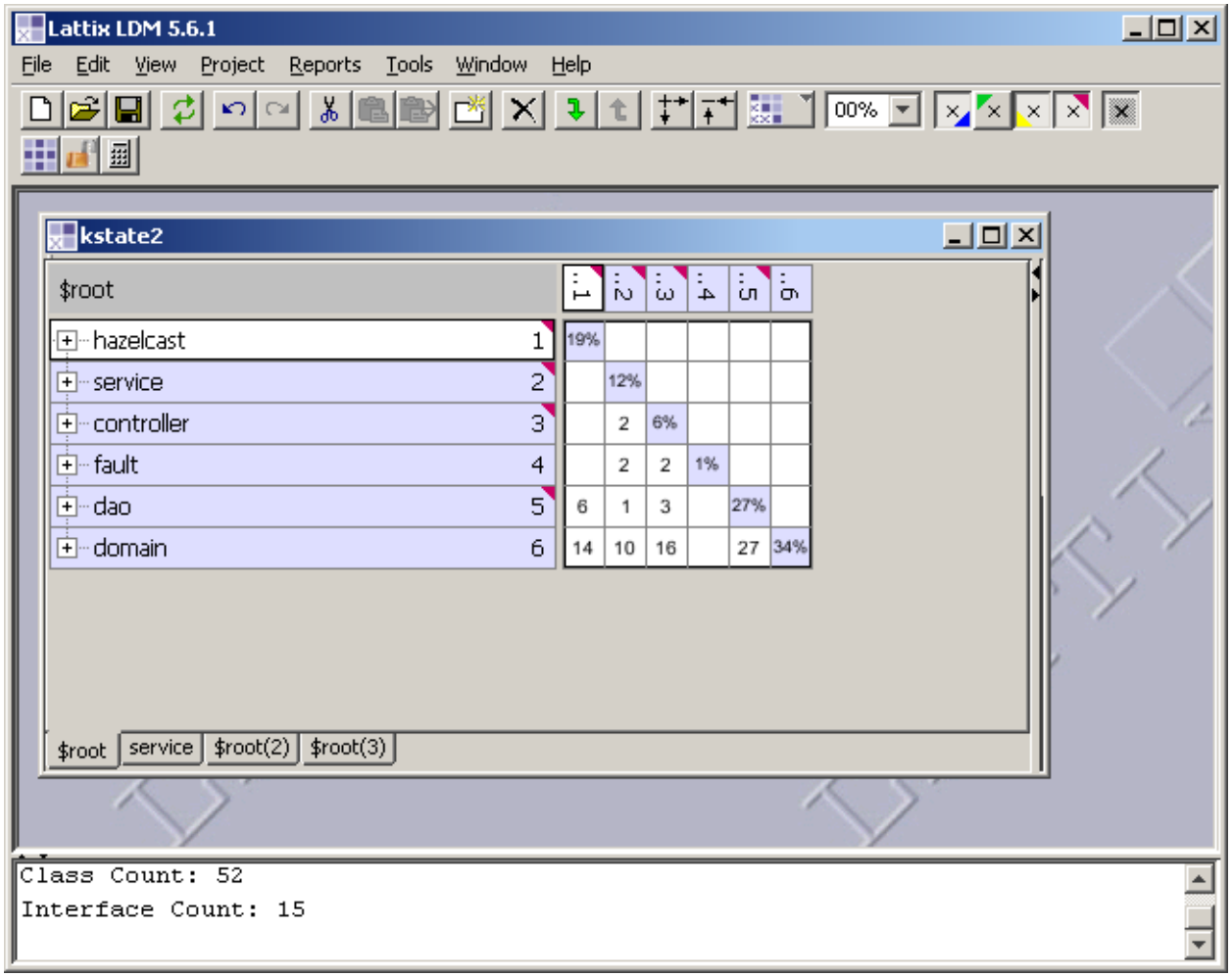
Component Highlights

Package Structure – Design View

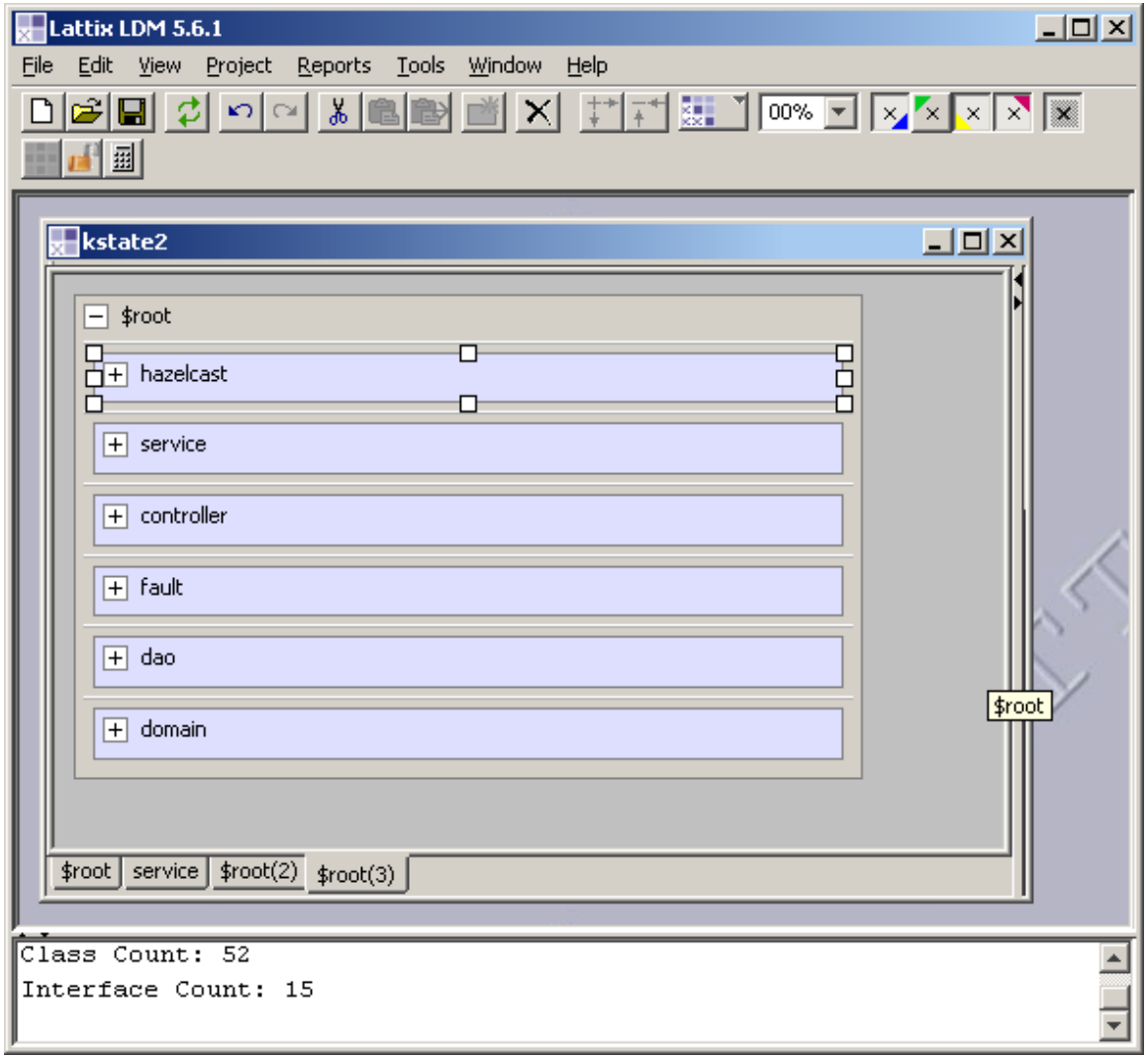


Generated by UModel

Component Highlights – Dependency State Matrix

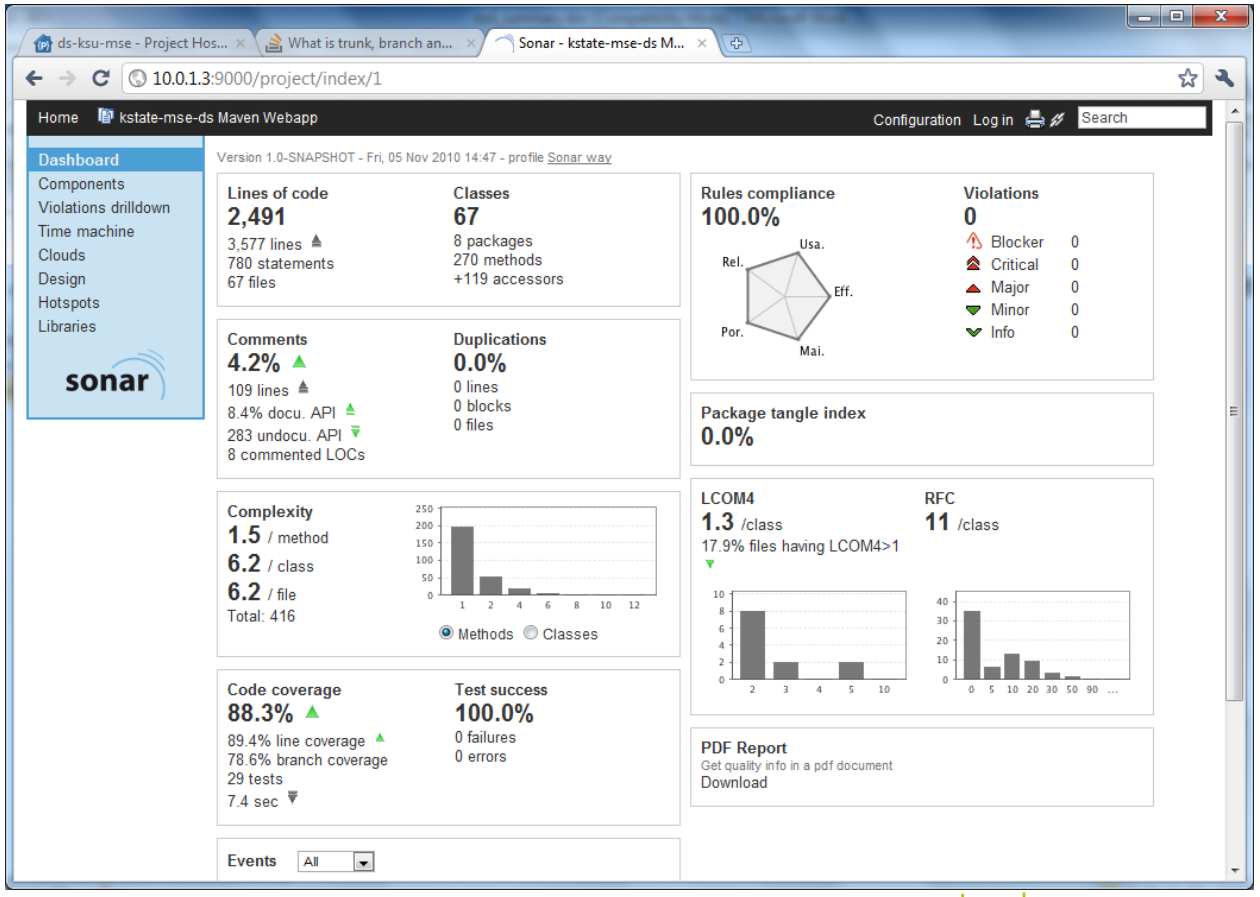


Component Design – Extracted Dependency Layers

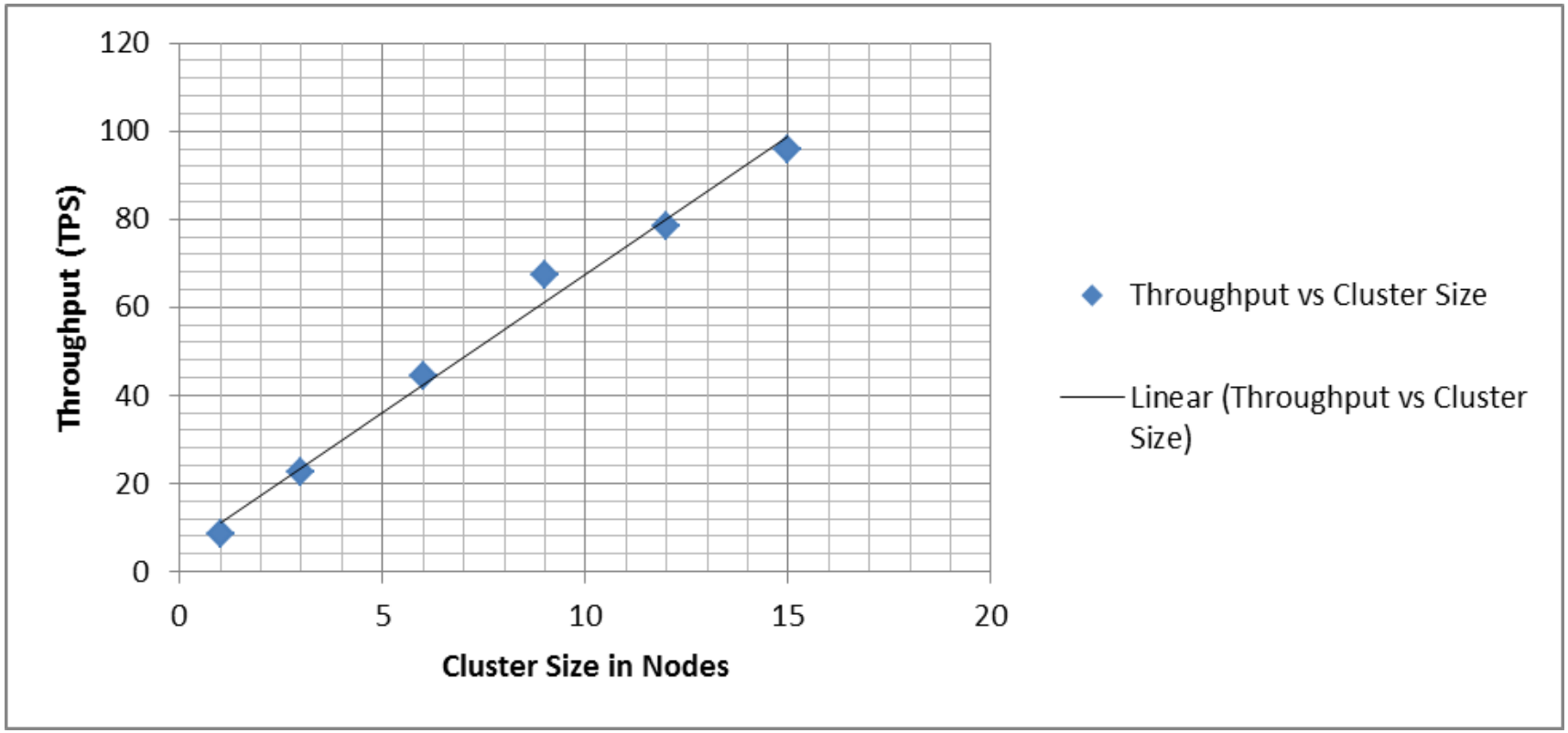


Assessment Evaluation

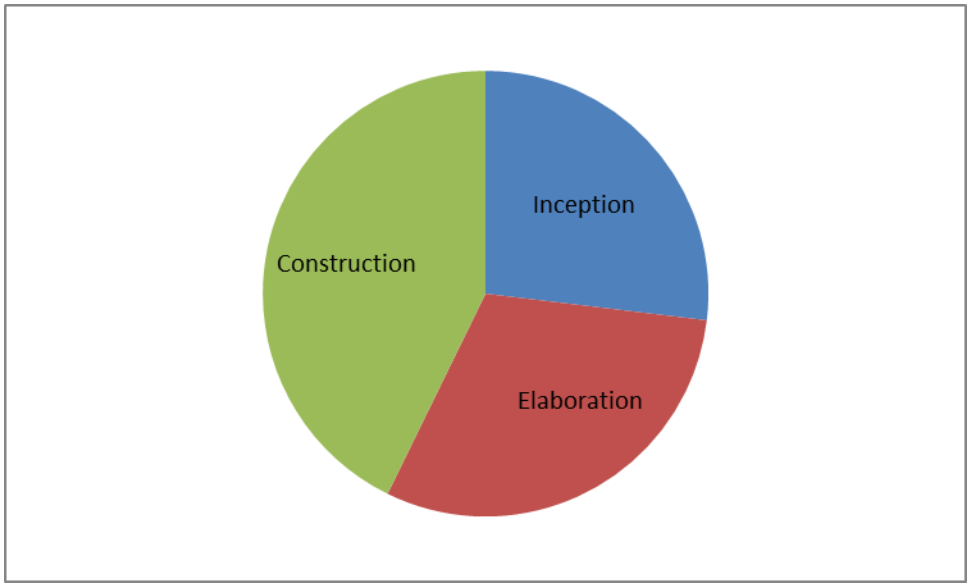
- **Review of unit test coverage and code quality metrics using Sonar (demo)**



Assessment – Scale Test Results



Project Evaluation – Time Breakdown By Phase



Project Evaluation – Effort and Estimates

- **Effort Expended: 376 Hours**
- **Seat of Pants Estimate: 555 Hours**
  - **Estimate obtained via looking a work breakdown structure and guessing durations**
- **COCOMO II Post-Architecture Estimate: 395 Hours**
  - **Estimate extremely sensitive to sizing metrics (in this case SLOC)**

Lessons Learned

- There's always room for improvement
- Real progress requires focused effort
- Be realistic about time commitments
- You can't be too diligent in record keeping
- Formal specification is a high value activity
- Trust data over intuition
- Infrastructure as a service is has high value for software development
- Invest in automation

Demo and Q&A