



Software Evolution Case Studies

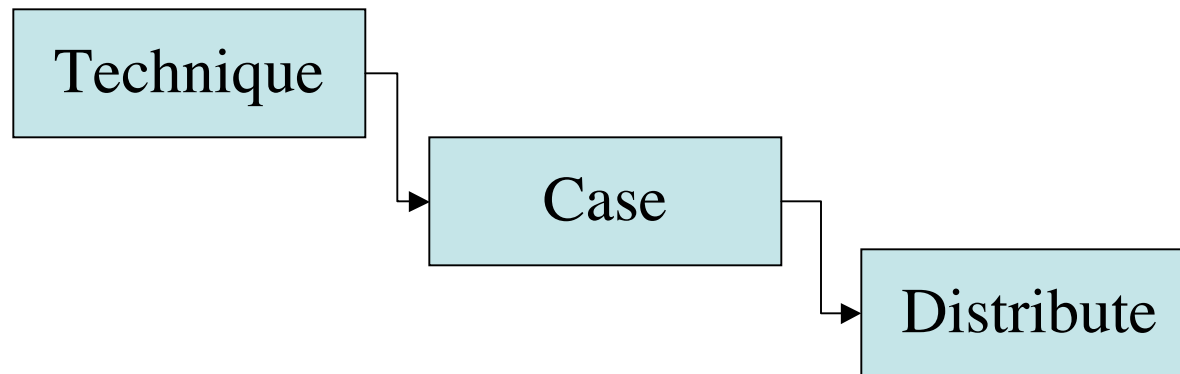
Filip Van Rysselberghe

Benevol 2005



Case study

“Aspect mining research results will have to be validated by means of a series of case studies.”



= illustrate the applicability on a concrete project



Examples

Benevol

ASML

a Perl
Program

DocGen

Ant

LanSim

Tomcat

Icsm04

Mozilla

CodeCrawler

Linux

Apache

Gcc



Comparison

7 A case per group/technique

- We can't compare using a different basis!
- We can't build on each other's findings

7 Are we really that different?

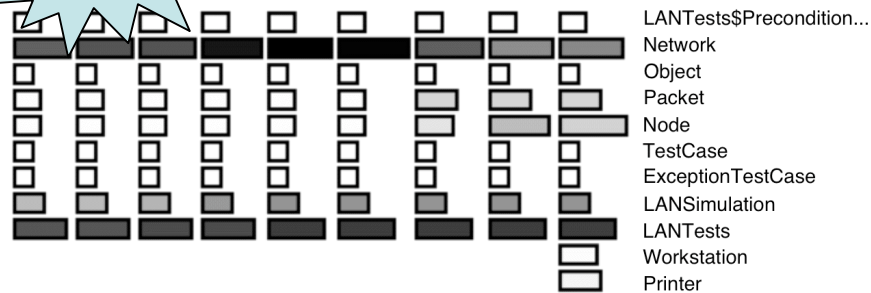
- Understanding, quality of architectures, aspect mining,...
- It's all about Software Evolution!
 - ↳ Similar solutions?
 - ↳ Common problems?



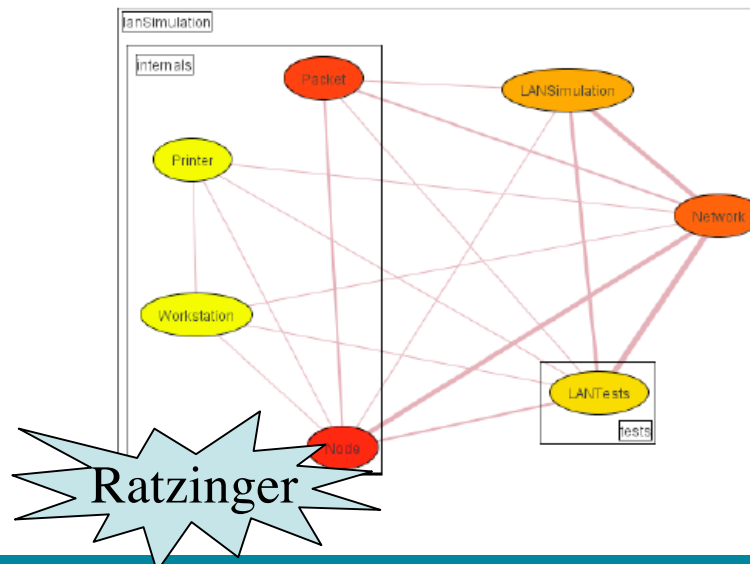
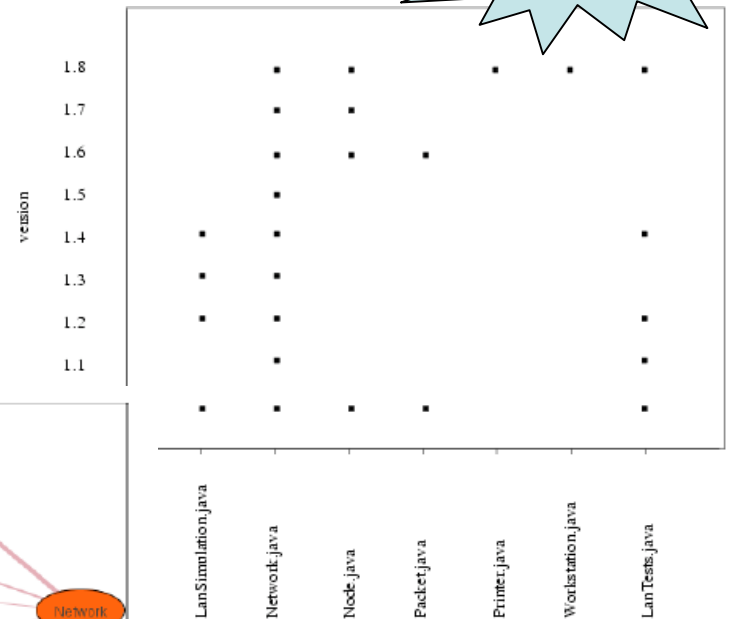
LanSimulation

Which components are strongly coupled?

Lanza



Rysselberghe



Ratzinger



Representative

- Common evolution characteristics?
 - What's typical/common?
 - Enough information about evolution?
- Characteristics of the case?
 - How do we measure?
 - Amount of info available?
 - When?

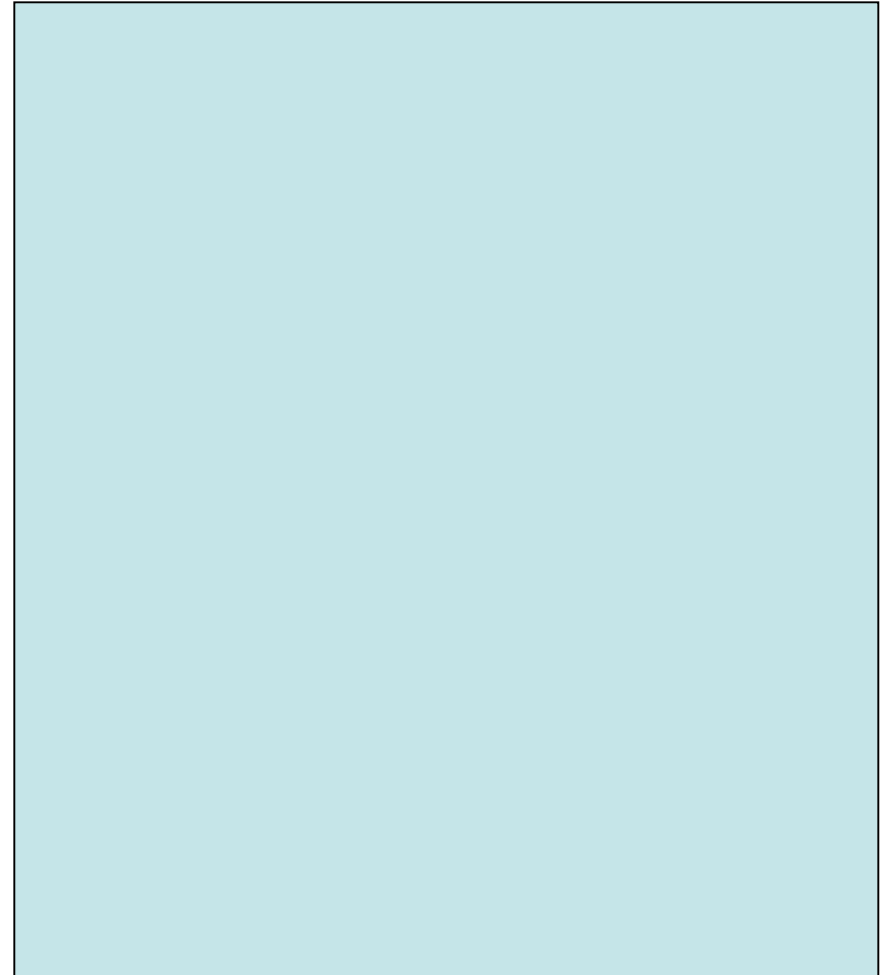


Retrospective View

Common

- Life-cycle
- Constant change
- Feature requests
- Large/Coarse

Case (Tomcat)





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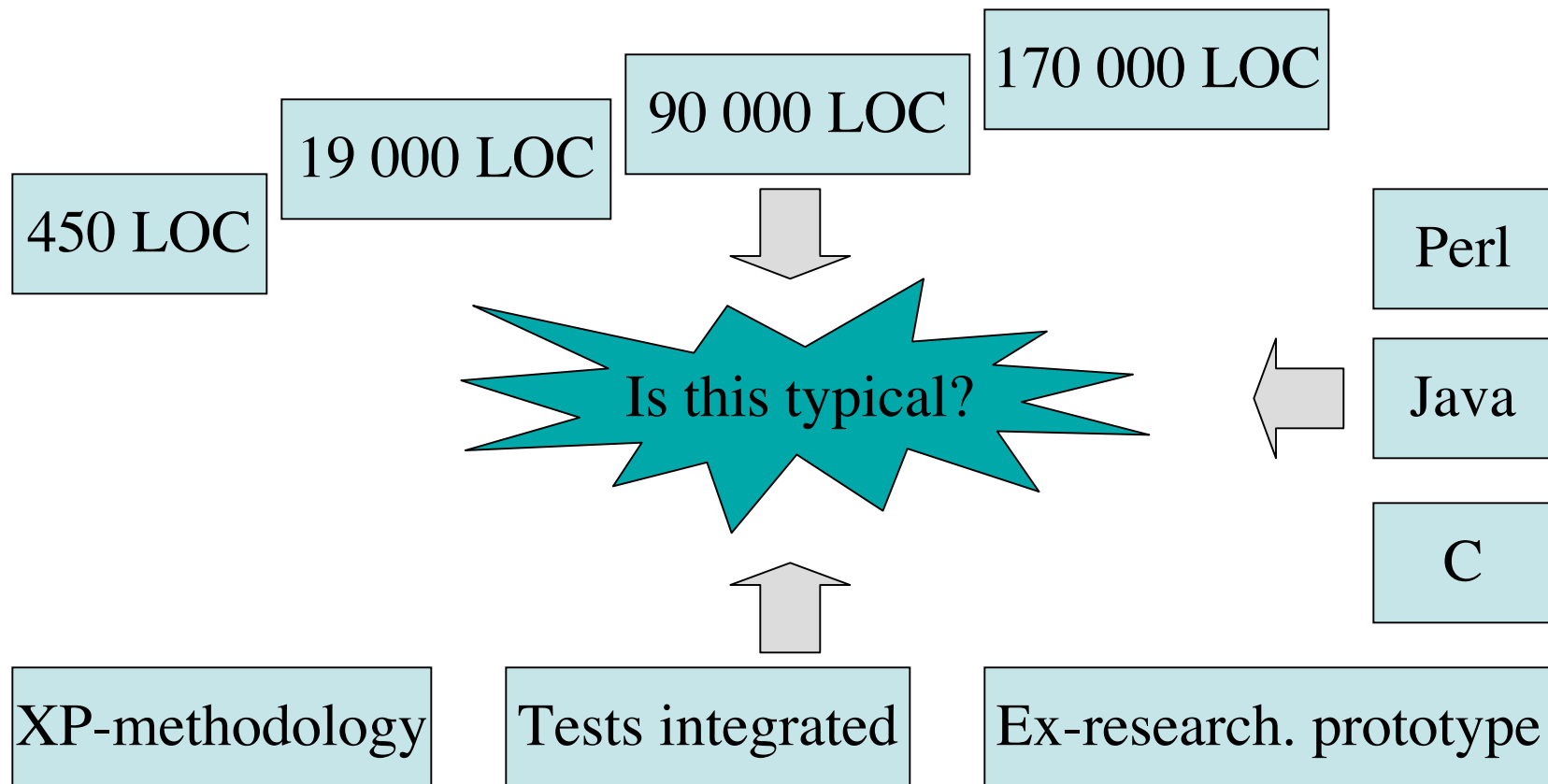
Case (Tomcat)

- Build from previous product
- Constant change
- Implements specification
- Limited/Coarse

- Java
- Design docs/rationale
- Mailing Archives



Your characteristics





Literature characteristics

- System serves a user base
- User base has changing demands
- Generally grows
- Constant change (bugs/functional)

YES!

I would...

NO!

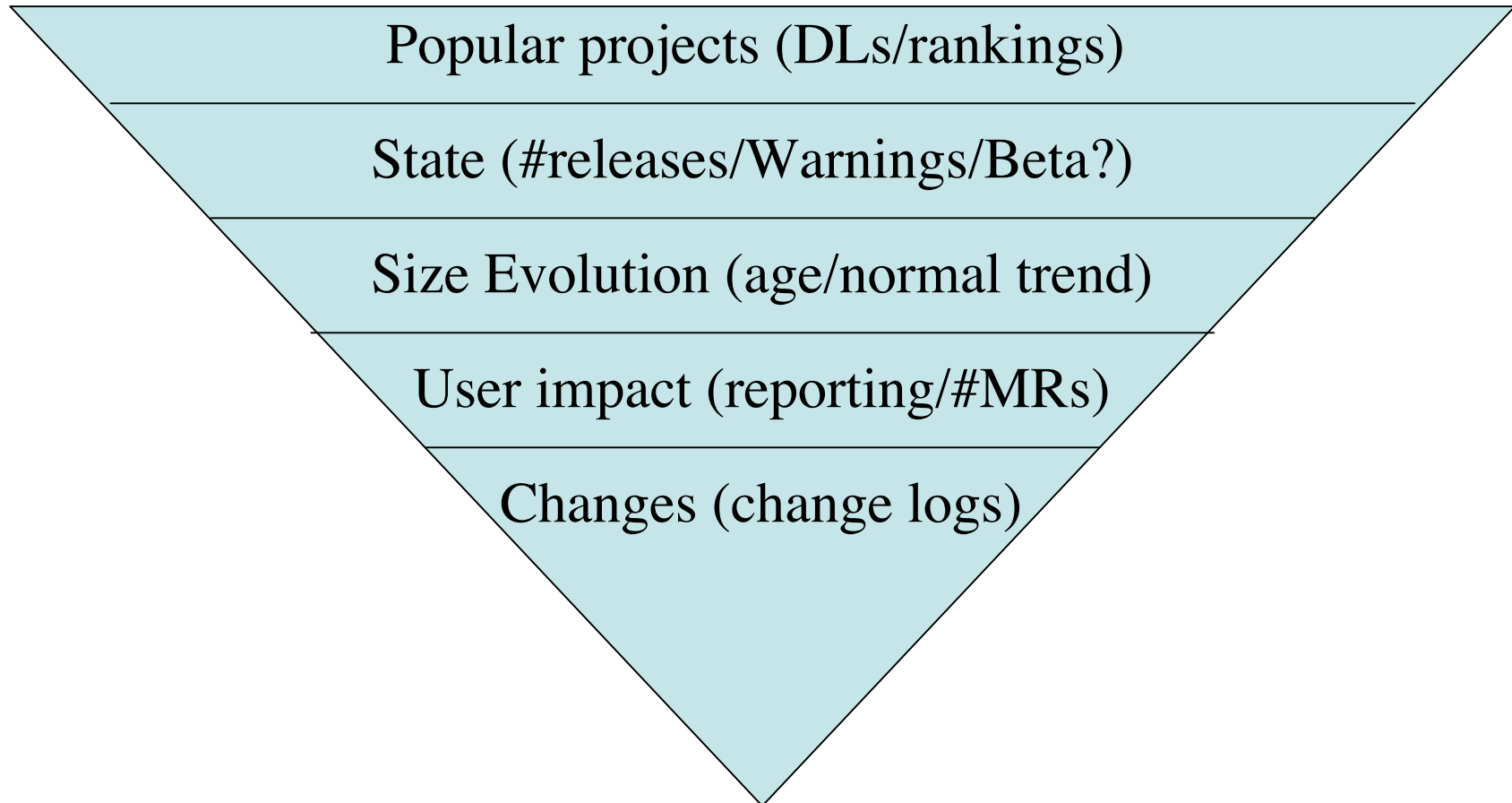


Case Selection

- How do we select our cases?
 - Based on measures? Which?
 - Based on quality of information?
- Where do we search?
- How did you act in the past?



Maybe like this?





Conclusion

- Many open questions!
 - Common Characteristics?
 - Case Selection?



Discuss

Speak with others about it;
talk it over in detail ;
have a discussion ;