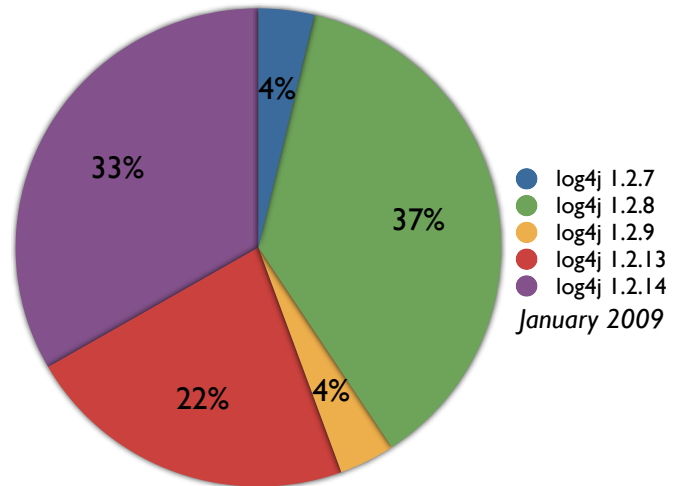
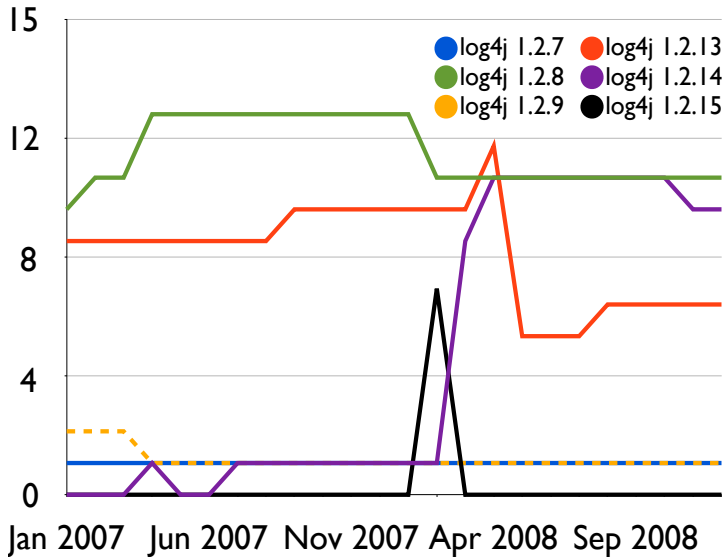


Trends in Code

Yana Momchilova Mileva
Saarland University, Germany

Should I use log4j 1.2.15?



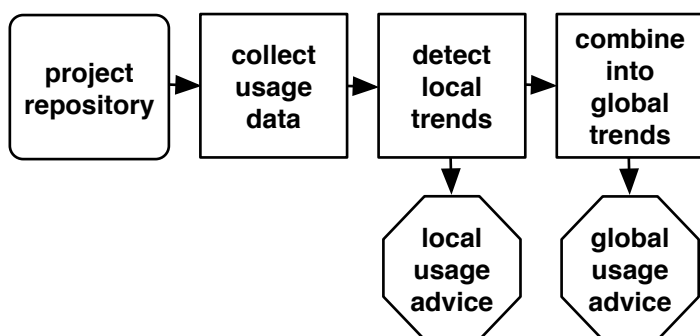
Code Features Trends

- ? How does the usage of code features, e.g. library versions, evolve?
- ? Which code features are interesting?
- ? Who and how will benefit from code features usage trends?

① Global Trends Analysis

- Analyze the usage of a code feature.
- Analyze a big number of projects.
- Analyze over a period of time.
- Make usage recommendations.

② Mining Code Trends



③ Library Global Usage

Library	Current Popularity	Switched back from	Trend	Should I use it?
junit 3.8.1	84%	0%	↗	yes
junit 4.4	9%	0%	→	maybe
log4j 1.2.15	0%	57%	→	no
derby 10.2	14%	0%	↘	no
servlet-api 2.5	25%	10%	→	no

Analyzed 250 open-source projects over a period of 2 years.