Should I use log4j 1.2.15?

![Graph showing usage trends of different versions of log4j]

- **Jan 2007**
- **Jun 2007**
- **Nov 2007**
- **Apr 2008**
- **Sep 2008**

### 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?

### 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.

### Mining Code Trends

1. **project repository**
2. collect usage data
3. detect local trends
4. combine into global trends
5. local usage advice
6. global usage advice

### Library Global Usage

<table>
<thead>
<tr>
<th>Library</th>
<th>Current Popularity</th>
<th>Switched back from</th>
<th>Trend</th>
<th>Should I use it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>junit 3.8.1</td>
<td>84%</td>
<td>0%</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>junit 4.4</td>
<td>9%</td>
<td>0%</td>
<td></td>
<td>maybe</td>
</tr>
<tr>
<td>log4j 1.2.15</td>
<td>0%</td>
<td>57%</td>
<td></td>
<td>no</td>
</tr>
<tr>
<td>derby 10.2</td>
<td>14%</td>
<td>0%</td>
<td></td>
<td>no</td>
</tr>
<tr>
<td>servlet-api 2.5</td>
<td>25%</td>
<td>10%</td>
<td></td>
<td>no</td>
</tr>
</tbody>
</table>

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

[http://www.st.cs.uni-saarland.de/softevo/aktari.php]