The Collage Framework
and
Code Markup Tools

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Introduction

• Collage Framework adds layers of (GEF) graphical objects to Eclipse code editors

• Collage Code Markup Tools let you mark up code with basic shapes, freehand drawings, and text notes
Demo
Extension Points

- GEF is a model-view-controller framework
  - Collage takes care of view
- Contribute model elements and controllers (`org.eclipselabs.collage.model`)
- Contribute GEF tools and Collage toolbar widgets (`org.eclipselabs.collage.tools`, `org.eclipselabs.collage.toolbar`)
Connections to Previous Work

Possible Future Applications
Code Review

```java
/**
 * @return an immutable DirCache instance. A new instance is created if
 * current instance is outdated
 * @throws NoWorkTreeException
 * @throws CorruptObjectException
 * @throws IOException
 */
public UnmodifiableDirCache getDirCache() throws NoWorkTreeException,
        CorruptObjectException, IOException {
    // Code review comment
    Shawn Pearce  23-Jan-2011 3:55 PM
    Because the field is volatile, it's bad to read it multiple times in the
    method. Instead do:

    DirCache ro = readOnlyDirCache;
    if (ro == null || ro.isOutdated()) {
        ro = new UnmodifiableDirCache(getIndexFile(), getFS());
        readOnlyDirCache = ro;
    }
    return ro;
```
Highlighting Concerns (features, tasks...)

Sarah Rastkar, Gail Murphy and Alex Bradley. “Generating Natural Language Summaries for Crosscutting Source Code Concerns”. ICSM 2011.
Alex Bradley and Gail Murphy. “Supporting Software History Exploration”. MSR 2011.
Related Methods
(“lite” Light Table/Code Bubbles)

Chris Granger's Light Table prototype.
Presentation Extension/Registration-Based Abstraction

Andrew Eisenberg, “Presentation Techniques for more Expressive Programs”. PhD presentation, UBC, 2008.

Sam Davis and Gregor Kiczales, “Registration-Based Language Abstractions”. OOPSLA Onward! 2010.
Bytecode View

Andrey Loskutov, Bytecode Outline plugin.
http://andrei.gmxhome.de/bytecode/index.html
Get Collage:
http://eclipselabs.org/p/collage/

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