Motivation

Open source software is a major force.

Many OSS communities are also vibrant online social spaces.

Bringing email and code together might reveal hidden dynamics.
revision 1.25
date: 2003/11/03 22:37:45; author: parg; state: Exp; lines: +19 -7
added tracker client listener to support actions on url change

revision 1.24
date: 2003/11/03 21:29:46; author: gudy; state: Exp; lines: +2 -3
*** empty log message ***

revision 1.23
date: 2003/11/02 22:57:00; author: gudy; state: Exp; lines: +0 -1
plugin changes ... and 1st plugin ... and plugin initializer :)

revision 1.22
date: 2003/11/02 02:13:58; author: nolar; state: Exp; lines: +2 -1
More Move When Completed bugfixes.

revision 1.21
date: 2003/11/01 21:38:58; author: nolar; state: Exp; lines: +1 -1
Removed redundant getSavePathForSave()

revision 1.20
date: 2003/10/31 18:14:28; author: parg; state: Exp; lines: +12 -10
*** empty log message ***

revision 1.18
date: 2003/10/30 00:20:16; author: gudy; state: Exp; lines: +50 -11
Added the ability to disable auto priority, and auto start / stop
Motivation
Social Production

For all of us, there comes a time . . . when we choose to act in some way that is oriented toward fulfilling our social and psychological needs, not our market-exchangeable needs . . . When can all these acts, distinct from our desire for money and motivated by social and psychological needs, be mobilized, directed, and made effective?
— Yochai Benkler, The Wealth of Networks

“It’s an emergent property of connected human minds that they create things for one another’s pleasure and to conquer their uneasy sense of being too alone.”
— Eben Moglen, Professor, Columbia Law School
Related Work

Gutwin’s interviews with open source developers.
*Group Awareness in Distributed Software Development. CSCW 2004.*

Mockus’s studies of Apache and Mozilla.
*Two Case Studies of Open Source Software... ACM TOSEM 2002.*

SeeSys and Augur: two source code visualizations

History Flow and Authorlines: people-centric visualizations
Iterative Design Process

Gilbert and Karahalios. LifeSource: Two CVS Visualizations. CHI 06 Extended Abstracts.
Design Rationale

Focus on people.

Design for social data analysis.

Use simple metrics.
Demo
Online Field Study

Methodology

Tested “in the wild” with 9 open source developers via the web.

Participants used CodeSaw for 30 min - 1 hour.

Used online questionnaire in lieu of observation.
Online Field Study

Participants and Their Projects

7 men and 2 women, ages 19 to 61.

6 different, very active open source projects in all.

Projects ranged in age from 1 to 4 years.
Results

Satisfaction questions indicate that developers enjoyed CodeSaw.

CodeSaw received 4.4 (of 5) on easy-of-use question.

7 of 9 participants would use it monthly or at release time.
Community

“It confirmed my long-held suspicions about the community. It was easy to see who was doing the development and who was doing the commentary. Often they were not the same people.”

“It was interesting. At first I felt as though I had not contributed much, but then I realized that I had a ‘surrogate’. I was working closely with another developer who committed the changes to the code base.”

“I feel a bit lonely. It doesn’t reflect the community in a whole. There’s a lot of people passing by in the forums. People sending bug reports and patches are not taken into account.”
Incentives For Developers

“I’d love to have it in the “activity page” of the project to show the “pulse”. It might be interesting as an immediate reward for developers. CodeSaw might show the “most active people” in the community very easily, and it could show the history of the project (some project leaders might want to erase some parts of it though). :-)

“I might put things in CVS more often and write more email.”

“For example, if one looks at <username> in 2005, he did no development work that year. If the project were waiting for him to do something and a milestone was not met, we could get after him.”

“I might be more sure to commit some of the changes that I collaborate with other developers on.”
Contributions

CodeSaw reveals hidden social and work dynamics in OSS.

Evidence for using social visualization to motivate social production.
Thank you.
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