

Table 1

Collaborative development environments

CDE	Collaborative development tools						
	Version-control systems	Trackers	Build tools	Modelers	Knowledge centers	Communication tools	Web 2.0 applications
SourceForge (sourceforge.net)	CVS,* SVN, Git, Mercurial, Bazaar**	Bugs, feature requests, patches, support requests	No	No	No	Mailing lists; forums	Feeds; hosted applications for blogs, micro-blogs and wikis
GForge (gforge.org)	CVS, SVN, Perforce†	Tasks and issues (bugs, feature requests, patches, support requests)	Integrating CruiseControl	No	Document manager	Mailing lists; forums	Feeds, wiki
Trac (trac.edgewall.org)	SVN; plug-ins for integrating Git, Perforce, Mercurial, Darcs, Bazaar	Tickets (tasks, feature requests, bugs, support issues)	Bitten plug-ins for integrating: Continuum, CruiseControl, Hudson‡	Project roadmap	As wiki	Plug-in for forums	Wiki, feeds, plug-ins for tagging tickets and wiki pages
Google Code (code.google.com)	SVN, Mercurial; integrating Git	Issues (defects, enhancements, tasks)	No	No	As wiki	Integrating Google Groups	Wiki, feeds
Assembla (www.assembla.com)	SVN, Git, Mercurial	Tickets (tasks, enhancements, ideas, defects)	No	Milestones, agile planner	As wiki	Message board, chat	Wiki, microblog, feeds
Rational Team Concert (jazz.net/projects/rational-team-concert)	Built-in	Work items (defects, enhancements, plan items, retrospectives, risk, stories, tasks, build items, use cases)	Built; integrating Ant,§ Maven	Process templates	Integrating MS Share-Point and Lotus Quickr document	Instant messaging	Feeds, wiki, tagging work items
GitHub (github.com)	Git	Issues	No	No	As wiki	No	Feeds, wiki, social networks
Launchpad (launchpad.net)	Bazaar	Bugs; integrating with external trackers	No	Blueprints (specifications of features or processes)	Questions and answers	Mailing lists	No
CodePlex (www.codeplex.com)	Built-in	Work items (features, issues, tasks)	CruiseControl.NET	Documentation tab	As wiki	Mailing lists, discussions list	Feeds, wiki

*CVS: Concurrent Versions System (www.nongnu.org/cvs)

**Bazaar (<http://bazaar.canonical.com>)

†Perforce (www.perforce.com)

‡Hudson (<http://hudson-ci.org>)

§Ant (<http://ant.apache.org>)

typically available on social network sites. For instance, Assembla (www.assembla.com) notifies users of project-related events via Twitter; GitHub (<http://github.com>) offers a Twitter-like approach to monitoring a project's progress; Rational Team Concert (www.ibm.com/software/awdtools/rtc) borrows Delicious's tagging feature, letting

developers assign free keywords to managed items.

Table 1 highlights a selection of CDEs and shows how they support these tools.

Specific Collaboration Tools

CDEs are often unsuitable in companies because of legacy tools or environments

that must be enhanced with specific collaboration functionalities. In these situations, developers can choose from collaboration tools that map to typical life-cycle activities.

Project Management

Collaborative project management tools