Assignment 1: Tools

Joe Lee

September 9, 2013

Ryan Alcoran, Joe Lee, Shivalik Narad, Nam Phan, Swapna Vemparala, Amber Wong

Team Q 06

Ryan Alcoran, Joe Lee, Shivalik Narad, Nam Phan, Swapna Vemparala, Amber Wong

Team Q 06

• Lee, Joe - Business Manager

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- Lee, Joe Business Manager
- Vemparala, Swapna Project Manager

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- Phan, Nam Development Manager

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- Phan, Nam Development Manager
- Alcoran, Ryan Test Manager

Java



Joe Lee

September 9, 2013

Java

Object-oriented,

Java

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• Software Configuration Management: EGit

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 Software Configuration Management: EGit and regular, command-line git client.

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- Software Hosting Facility: Github

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- Standalone Bug Tracker: Codebeamer

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- Standalone Bug Tracker: Codebeamer
- Editor and IDE: Eclipse and Emacs

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- Standalone Bug Tracker: Codebeamer
- Editor and IDE: Eclipse and Emacs
- Project Management: OpenProj

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- Software Hosting Facility: Github
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Tracking and controlling changes in software

EGit



Tracking and controlling changes in software

EGit

"The EGit project is implementing Eclipse tooling on top of a Java implementation of Git."

Tracking and controlling changes in software

EGit

"The EGit project is implementing Eclipse tooling on top of a Java implementation of Git."

- free, open source, designed for branching and merging
- decentralized model (everyone has own copy of repository, which can later be merged)
- Can be integrated into Eclipse, using a plug-in.

Tracking and controlling changes in software

EGit vs Others

Tracking and controlling changes in software

EGit vs Others

Subversion

Tracking and controlling changes in software

EGit vs Others

Subversion

- free, open source, actively developed
- easier to use than Git (more tools available for non-technical users, error messages are easier to understand)
- centralized model (everyone has a working copy and changes are submitted to central repository)

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LibreSource

• free, open source, maintained and new features under development

Tracking and controlling changes in software

EGit Installation

Tracking and controlling changes in software

EGit Installation

Adding a new software site

There are several different ways to add a software site to the list of sites that are used when browsing available software and checking for updates. You must know the Web Site location (URL) of the site that you want to add. To add the site, use one of the following procedures:

- Add a new site using the histall/Update > Available Software Sites preference page.
 - 1. Click the Add... button.
 - 2. Type a name into the Name text box
 - If the software site is located on the web, type the Web Site location (URL) of the site into the Location text box. You may also paste or drag and drop a URL from a web browser into this text box.
 - 4. If the software site is in your local file system (including a CD), click Local... to specify the directory location of the site.
 - 5. If the software site is in your local file system but is packaged as a jar or zip file, click **Archive...** to specify the name of the file.
- . Drag and drop the site URL from a browser into one of the following locations:
 - 1. The Work With combo box or the software list on the first page of the Install New Software wizard.
 - The Available Software Sites preference page.
 The Location text field in the Add Site... dialog.
- On some platforms, you may be able to drag and drop a local directory or archive file from the file system into the same locations.
- Related tasks

Installing new software Working with the Available Software sites

Figure: Instruction to install Egit into Eclispe

Tracking and controlling changes in software

EGit Installation

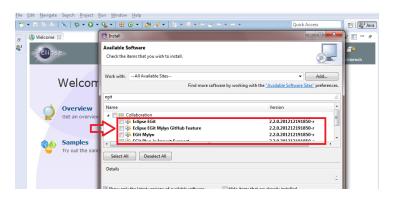


Figure: Instruction to install Egit into Eclispe

Software hosting facilities

GitHub

Software hosting facilities

GitHub

GitHub is a git hosting service.

GitHub

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GitHub is

- Gratis for public projects
- Paid for non-public projects.

Github vs Others

Github vs Others

Google Code

Github vs Others

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Github vs Others

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- Gratis. For "open source" projects only.
- What is "open source"?

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Github vs Others

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Tigris

Restricted to collaborative software development tools.

Software Configuration Management (SCM)



Screenshots/github/Ologin.png

Screenshots/github/1create.png

Screenshots/github/2clone.png

Screenshots/github/3edit.png

Screenshots/github/4add.png

Screenshots/github/5commit.png

Screenshots/github/6comment.png

Screenshots/github/7push.png

Git client installation

Git client installation

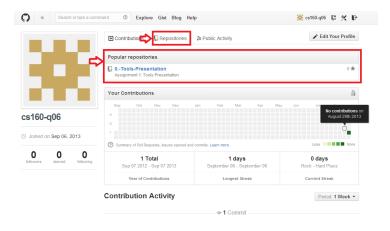


Figure: GitHub web UI and sample Repository

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GitHub client installation

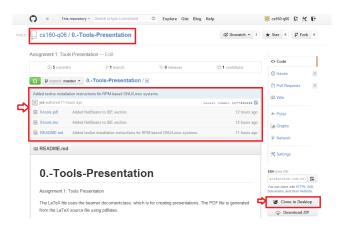


Figure: Inside a repository and how to clone it

GitHub client installation



The easiest way to use Git on Windows. Period.

Figure: Github software for Windows

GitHub client installation

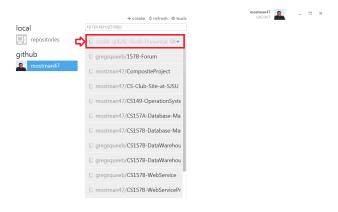


Figure: Github software UI

GitHub client installation



Figure: Manage and Commit Repo

GitHub client installation



Figure: Manage and Commit Repo

GitHub client installation



Figure: Result and History of Committing

CodeBeamer

CodeBeamer

"CodeBeamer is a web based Collaborative Application Lifecycle Management and Requirements management tool for distributed software development"

CodeBeamer

"CodeBeamer is a web based Collaborative Application Lifecycle Management and Requirements management tool for distributed software development"

- Nonfree
- Backend: MariaDB (a.k.a. MySQL), Oracle, Apache Derby or PostgreSQL
- CodeBeamer is a collaborative Requirements Management (RM) and Application Lifecycle Management (ALM) solution for distributed software development.

CodeBeamer vs Others



CodeBeamer vs Others

Bugzilla



CodeBeamer vs Others

Bugzilla

- Licensed under the Mozilla Public License (a GNU GPL-compatible license, which means it is free software, so you have the freedom to run your own copy on your own server), developed/maintained by Mozilla Foundation.
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CodeBeamer vs Others

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Google Code Hosting

CodeBeamer vs Others

Bugzilla

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- backend: MariaDB, Oracle, PostgreSQL, SQLite

Google Code Hosting

- Not distributed as software that you can run on your own computer (hosted only); available for "open source" projects (by Google Code)
- BigTable backend (also proprietary)

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CodeBeamer Installation

CodeBeamer Installation

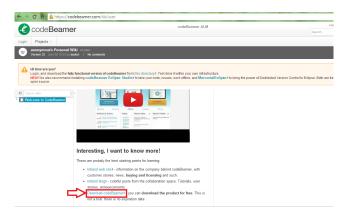


Figure : Download

CodeBeamer Installation

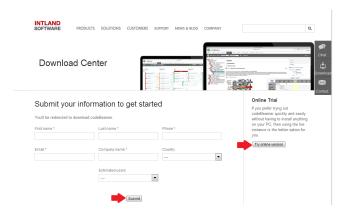


Figure: Download

CodeBeamer Installation

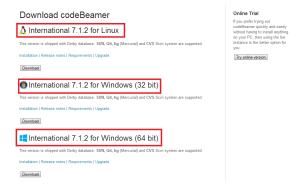


Figure: Download

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CodeBeamer Installation



Figure: Web UI in localhost

CodeBeamer Installation



Figure: Register User

CodeBeamer Installation

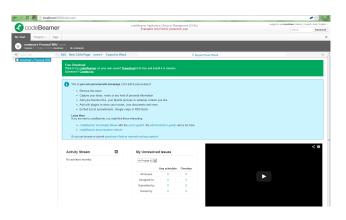


Figure: User's Management UI

Netbeans, Eclipse, GNU Emacs

GNU Emacs

Netbeans, Eclipse, GNU Emacs

GNU Emacs

License: GNU GPLv3

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GNU Emacs

License: GNU GPLv3

Text editor

Netbeans, Eclipse, GNU Emacs

GNU Emacs

License: GNU GPLv3

- Text editor
- Extensible

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- Text editor
- Extensible
- Customizable

Netbeans, Eclipse, Emacs

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NetBeans IDE

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Netbeans, Eclipse, Emacs

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Netbeans, Eclipse, Emacs

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http://www.eclipse.org/downloads/

Eclipse Installation

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Figure : Download

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Eclipse Installation

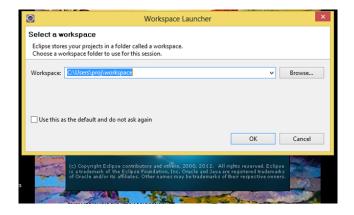


Figure: Workspace

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Eclipse Installation

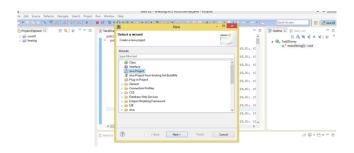


Figure: Create new project

Eclipse Installation

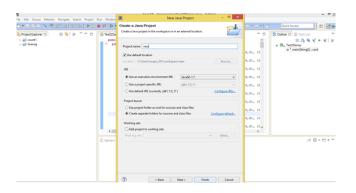


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Eclipse Installation

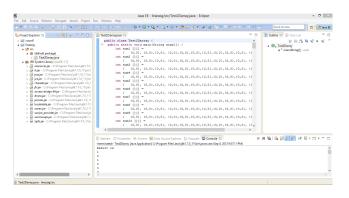


Figure : Running Program

Eclipse Installation

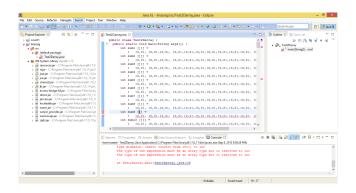


Figure: Error Logs

OpenProj

OpenProj

"OpenProj is an open source project management software application. It intends to be a complete desktop replacement for Microsoft Project. It runs on the Java platform, allowing it to run on a variety of different operating systems"

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- License: Free, open source project management application that supports project timelines, issue tracking, wiki, document management, time and cost reporting, code management, Scrum, and more.
- Earned Value costing
- Gantt chart
- Resource Breakdown Structure (RBS) chart

OpenProj vs. Microsoft Project

OpenProj vs. Microsoft Project

Similar

- user interface and approach to construction of project plan
- create workbench breakdown structure
- assign resources

OpenProj vs. Microsoft Project

Similar

- user interface and approach to construction of project plan
- create workbench breakdown structure
- · assign resources

Different

- OpenProj can link upwards with methods (inserting tasks is more difficult than with Microsoft Project)
- OpenProj can just create resources (have to do so in the resource sheet)
- OpenProj lacks a more detailed view and project reports that is available with Microsoft Project

OpenProj Installation

OpenProj Installation



Figure: Download

OpenProj Installation

- Step 1 Double click and open the downloaded file. A dialog box will appear.
- Step 2 Hit run button on the dialog box.
- Step 3 Choose the directory where you want to install. And click next.
- Step 4 click install
- Step 5 click Finish. And your installation will be complete.

OpenProj Installation

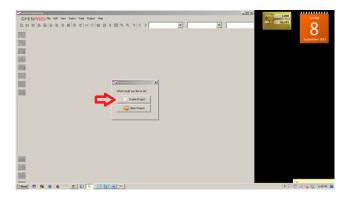


Figure: OpenProj's UI

OpenProj Installation

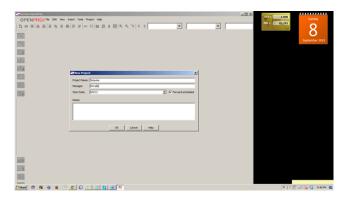


Figure: Create new Project

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September 9, 2013

OpenProj Installation

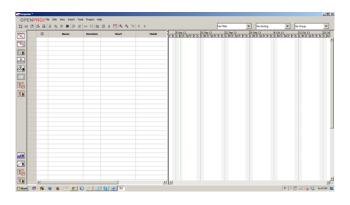


Figure: A project with empty sheet

OpenProj Installation

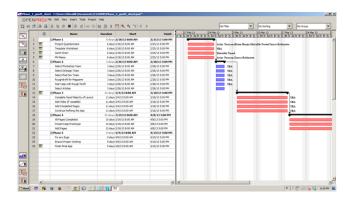


Figure: A project with details and timeline

References

- $\begin{bmatrix} 1 \end{bmatrix} \quad \mathsf{http://en.wikipedia.org/wiki/Comparison_of_revision_control_software } \\$
- [2] http://en.wikipedia.org/wiki/Comparison_of_open-source_software_hosting_facilities
- [3] http://en.wikipedia.org/wiki/Comparison_of_issue-tracking_systems
- $[4] \qquad {\tt http://en.wikipedia.org/wiki/OpenProj\#Comparison_to_Microsoft_Project}$
- [5] http://looble.org/git-vs-svn-which-is-better/
- $[6] \hspace{0.2in} {\sf http://slashdot.org/topic/bi/visual-studio-vs-eclipse-a-programmers-matchup/}$
- [7] http://www.programmers.kz/programming/java/articles_java/14715-some-background-information-on-java-and-object-orientation.html

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Team Q 06 thanks you...