Assignment 1: Tools

<Joe Lee>

September 9, 2013

<Joe Lee>

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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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- Wong, Amber {Risk Manager}

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- Wong, Amber {Risk Manager}
- Narad, Shivalik (Development Manager)

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- Vemparala, Swapna {Project Manager}
- Wong, Amber {Risk Manager}
- Narad, Shivalik (Development Manager)
- Phan, Nam {Development Manager}
- Alcoran, Ryan {Test Manager}

Tracking and controlling changes in software

Language: Java

"Java is an object-oriented programming language developed by Sun Microsystems in the early 1990s. The language is very similar in syntax to C and C++ but it has a simpler object model and fewer low-level facilities."

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Tools

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Tools

- Software Configuration Management: **EGit**
- Software Hosting Facility: Github
- Standalone Bug Tracker: Codebeamer
- Editor and IDE: Eclipse

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• Project Management: OpenProject

< Joe Lee>

Tracking and controlling changes in software

EGit

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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 compare to Others

Tracking and controlling changes in software

EGit compare to Others

Subversion



Tracking and controlling changes in software

EGit compare to 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)

Tracking and controlling changes in software

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LibreSource

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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.
 - 3. 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:
 - The Work With combo box or the software list on the first page of the Install New Software wizard.
 - 2. The Available Software Sites preference page.
 - 3. 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

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Tracking and controlling changes in software

EGit Installation

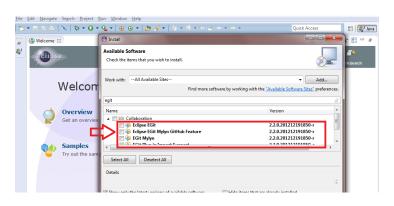


Figure: Instruction to install Egit into Eclispe

GitHub

GitHub

"GitHub is a web-based hosting service for software development projects that use the Git revision control system"

• Free for open source, paid for private.

GitHub

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- Free for open source, paid for private.
- Ad-free, not run on all free software.

Github compare to Others

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Google Code

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Tigris

Github compare to Others

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Tigris

- Restricted to collaborative software development tools.
- Not ad-free

GitHub Installation

GitHub Installation

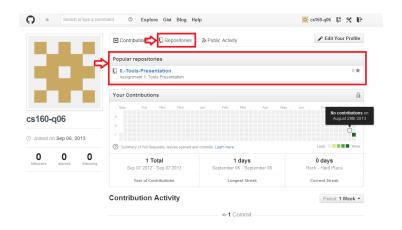


Figure: Github web UI and sample Repository

GitHub Installation

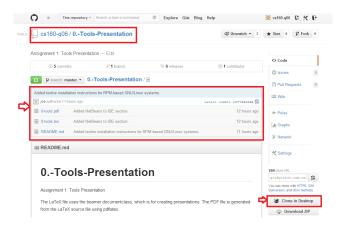


Figure: Inside a repository and how to clone it

GitHub Installation



The easiest way to use Git on Windows. Period.

Figure: Github software for Windows

GitHub Installation



Figure: Github software UI

GitHub Installation



Figure : Manage and Commit Repo

Software hosting facilities

GitHub Installation



Figure: Manage and Commit Repo

Software hosting facilities

GitHub Installation



Figure: Result and History of Committing

CodeBeamer

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"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"

- Proprietary, free version
- Backend: MySQL, Oracle, Apache Derby or Postgres
- CodeBeamer is the award winning Collaborative Requirements Management (RM) and Application Lifecycle Management (ALM) solution for distributed software development

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CodeBeamer compare to Others

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Bugzilla

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Bugzilla

- MPL (free, open source, developed/maintained by Mozilla Foundation)
- backend: MySQL, Oracle, PostgreSQL, SQLite

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Google Code Hosting

CodeBeamer compare to Others

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Google Code Hosting

- Proprietary, hosted; available for open source projects (by Google Code)
- BigTable backend (also proprietary)

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CodeBeamer Installation

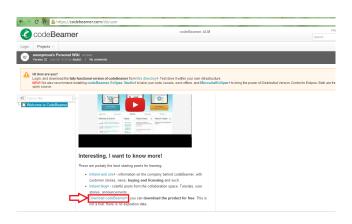


Figure: Download

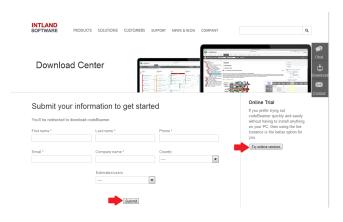


Figure : Download

CodeBeamer Installation

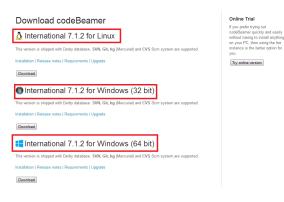


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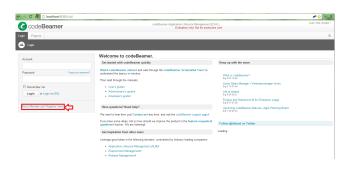


Figure: Web UI in localhost



Figure: Register User

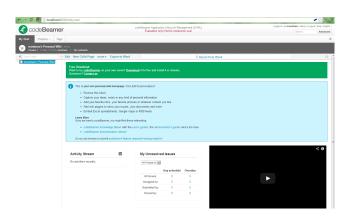


Figure: User's Management UI

Netbeans, Eclipse, GNU Emacs

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Editors and IDEs Netbeans, Eclipse, GNU Emacs

NetBeans IDE

Netbeans, Eclipse, GNU Emacs

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Eclipse

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• License: MPI

< Joe Lee>

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Netbeans, Eclipse, GNU Emacs

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License: GNU GPLv3

Netbeans, Eclipse, GNU Emacs

GNU Emacs

License: GNU GPLv3

Text editor

Netbeans, Eclipse, GNU Emacs

GNU Emacs

License: GNU GPLv3

- Text editor
- Extensible

Netbeans, Eclipse, GNU Emacs

GNU Emacs

License: GNU GPLv3

- Text editor
- Extensible
- Customizable

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

Eclipse Installation

Eclipse Installation

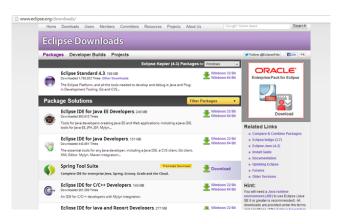


Figure: Download



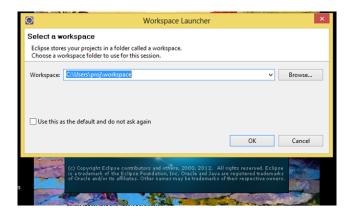


Figure: Workspace

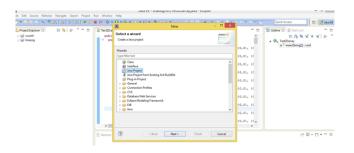


Figure: Create new project

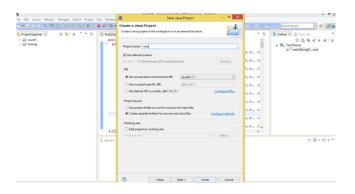


Figure : Create new project

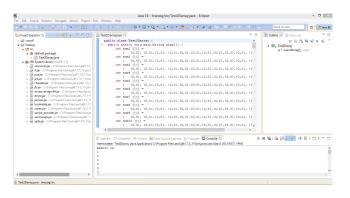


Figure : Running Program

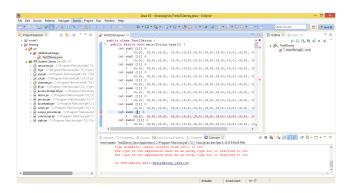


Figure : Error Logs

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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"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"

- 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

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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

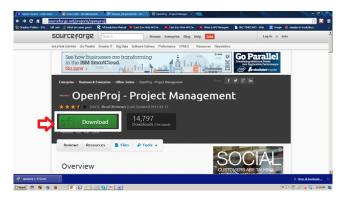


Figure: Download

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

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OpenProj Installation

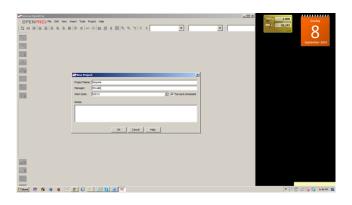


Figure : Create new Project

OpenProj Installation

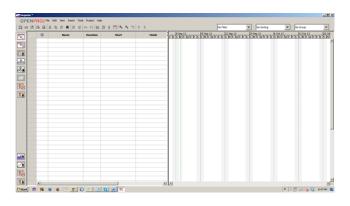


Figure : A project with empty sheet

OpenProj Installation

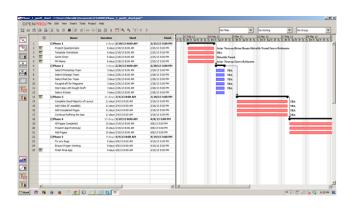


Figure: A project with details and timeline

References

- http://en.wikipedia.org/wiki/Comparison_of_revision_ control_software
- http://en.wikipedia.org/wiki/Comparison_of_open-source_ software_hosting_facilities
- http://en.wikipedia.org/wiki/Comparison_of_ issue-tracking_systems
- http://en.wikipedia.org/wiki/OpenProj#Comparison_to_ Microsoft_Project
- http://looble.org/git-vs-svn-which-is-better/
- http://slashdot.org/topic/bi/ visual-studio-vs-eclipse-a-programmers-matchup/
- http: //www.programmers.kz/programming/java/articles_java/ 14715-some-background-information-on-java-and-object-orie html

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Team Q 06 Thank you!