


SENG 371  
SOFTWARE EVOLUTION



BUG TRACKING

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LAB OUTLINE

- Bug Tracking System
- Types of bug tracking system
- Bug Tracking Tools
- Bugzilla

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BUG TRACKING SYSTEM

- Bug Tracking system or issue tracking system or defect tracking system, is a software application that keep tracks of reported bugs.



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BUG TRACKING

- Not only Software Development Team need a bug tracking system but sysadmin team, dba team, network team all require some system to track their work.

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WHY BUG TRACKING TOOLS?

- Collaborative Work.
- Software is a result of many people at different locations different timezones.
- Communication is crucial, tool makes it easy.
- Makes easier to track history and evolution of bugs.

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BENEFITS

- Clear centralized overview of development requests(bugs and improvements).
- It helps in next release of Software by using all logs.
- Generating reports on productivity of programmers at fixing bugs.
- Improves Communication.

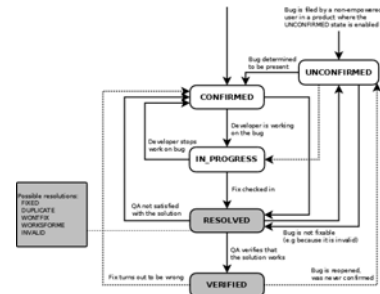
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### TYPES OF BUG TRACKING SYSTEM

- Web browser based
- Client Server based model
- Distributed Bug Tracking :- Designed to be used with distributed revision control software like Fossil, Veracity and FogBugz.

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### LIFE CYCLE OF BUG



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### MAJOR COMPONENTS

- Major Component of Bug tracking system is database that records facts about known bugs.

Facts can be :-

- Time
- Severity
- Identity
- Resolution

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### BUG REPORT ATTRIBUTES

- Date : Open Date, Closed Date
- Status : New, Unconfirmed, Open, Closed, Deleted, Assigned
- Request Id: Number
- Detailed Description
- Severity\Priority : - critical, major, minor\p1,p2
- Category if any, like Gui, Installation or certain module

ID	Product	Comp	Assignee	Status	Resolution	Summary	Changed
111	Fossil	Sub 2	justdave@prodcem.com	NEW		incorrect table	2003-02-09
112	Fossil	Sub 01	evn@bluemartin.com	NEW		bug fix	2003-02-09

### BUG REPORT ATTRIBUTES

#### [ 1457565 ] Startup Fails

You may monitor this Tracker item after you login (register an account, if you do not already have one)

Submitted By: be\_brg\_peh - be\_brg\_peh  
 Date Submitted: 2006-03-23 23:49  
 Last Updated By: be\_brg\_peh - Comment added  
 Date Last Updated: 2006-03-28 06:59  
 Number of Comments: 2  
 Number of Attachments: 0  
 Category: (7) win32  
 Group: (7) 2.0.0 beta 2  
 Assigned To: (7) Daniel Atallah  
 Priority: (7) 5  
 Status: (7) Open  
 Resolution: (7) None  
 Summary: (7) Startup Fails

Running Beta 2 on WinXP pro sp2.  
 First use after installation worked fine. Added a yahoo account, and could connect to the server using that account.

After restarting Windows it's impossible to start Gaim again. Complete uninstall, including aspell, didn't solve the problem. The last version I installed was the beta 2 win32debug version.

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### BUG TRACKING SOFTWARES

- Bugzilla
- Mantis
- Jira
- GNATS
- Flyspray
- IBM Rational ClearQuest
- FogBugz
- Trac
- Fossil

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### PUBLIC BUG TRACKERS

- Lots of Open Source projects uses Bug Tracking systems to report a bug.

 [bugzilla.mozilla.org](http://bugzilla.mozilla.org)  
 [netbeans.org/community/issues.html](http://netbeans.org/community/issues.html)  
 [bugs.eclipse.org](http://bugs.eclipse.org)  
 [bugs.debian.org](http://bugs.debian.org)

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### PUBLIC BUG TRACKERS USING BUGZILLA

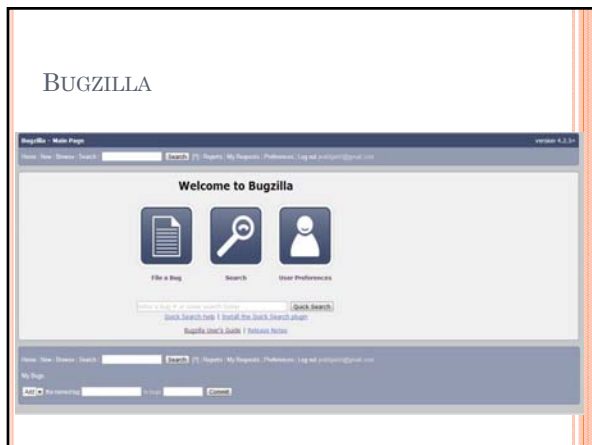
Open Source Projects:-

- Mozilla
- Eclipse
- Gnome
- Linux Kernel
- Apache Project
- Open Office

Companies :-

- NASA,
- Yahoo, Nokia.....

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### BUGZILLA FEATURES

- Advanced Search
- Email notifications controlled by user preferences
- Time tracking
- Scheduled reports by email(daily, weekly..)
- Reports and Charts based on user needs
- Communicate with Teamates

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### BUGZILLA REQUIREMENTS

- Compatible Database Server (MySQL, PostgreSQL, Oracle)
- Compatible version of Perl
- Web Server
- Suitable mail transfer agent or SMTP server

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