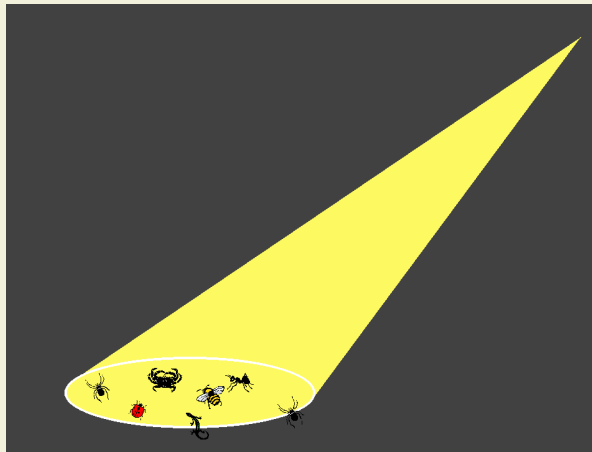


# Bug Tracking Tools

Software Engineering



Chair of Programming Methodology

**ETH**

Eidgenössische Technische Hochschule Zürich  
Swiss Federal Institute of Technology Zurich

# Outline

1. Why use Bug Tracking tools?
2. Life-cycle of a “bug report”
3. Bug report attributes
4. Bug tracking events
5. Main tools
6. Guidelines
7. Public bug trackers

# Why use Bug Tracking tools?

## ■ Collaborative software engineering

- Software result of **co-operation** of many people typically at **different locations**
- **Communication** is crucial
- Many **means** available
  - face-to-face meetings, e-mail, phone
  - video-conferencing, instant messaging, Wiki



## ■ Bugs are inevitable

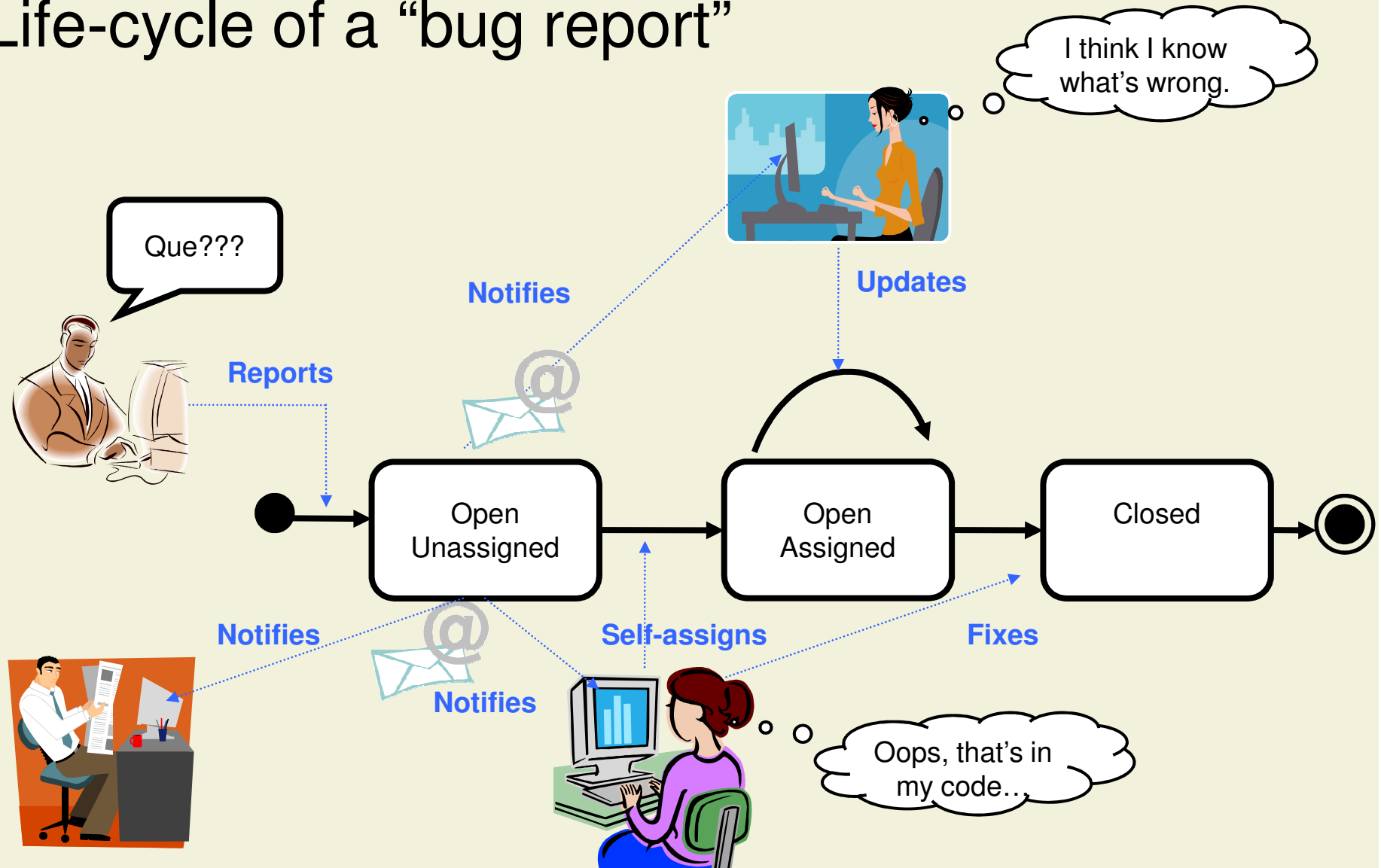
- Software written by **humans**
- It's only human to **err**



# Why use Bug Tracking tools?

- Need to **communicate** about **bugs**
  - discovery / symptom / reproduction / reason / removal
- Communication means **inappropriate**
  - e-mail: all parties involved? difficult to follow evolution.
  - phone, IM: all parties involved? might get forgotten.
  - Wiki: needs notification.
- We need a specialized tool
  - able to **track history** and **evolution** of bugs

# Life-cycle of a “bug report”



# Bug report attributes

- **Date**: report, updates, close
- **Status**: open, closed, deleted, assigned
- **Short summary**
- Detailed description
- **Severity** and **priority**
- **Platform** and **version** number
- **Category**: GUI, installation, certain module
- **Reproduction**: description or test-case



Request ID	Summary	Open Date	Priority	Assigned To	Submitted By
1457565	Startup Fails	2006-03-23 23:49	5	datallah	be_brg_peh

# Bug report attributes

- **Date**: report, updates, close
- **Status**: open, closed, deleted, assigned
- Short summary
- Detailed description
- Severity and priority
- Platform and version number
- Category: GUI, installation, certain module
- Reproduction: description or test-case (e.g. attaching core dump)



## [ 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](#)

**Last Updated By:**

be\_brg\_peh - Comment added

**Number of Comments:**

2

**Category: (?)**

win32

**Assigned To: (?)**

Daniel Atallah

**Status: (?)**

Open

**Summary: (?)**

Startup Fails

Running Beta 2 on WinXP pro sp2.

**Date Submitted:**

2006-03-23 23:49

**Date Last Updated:**

2006-03-25 05:09

**Number of Attachments:**

0

**Group: (?)**

2.0.0 beta 2

**Priority: (?)**

5

**Resolution: (?)**

None

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.

# Bug tracking events

- Open, **update** and **close** report

**Add a Comment:**

**DO NOT enter passwords or other confidential information!**

- **Search** among reports

Assignee: (?)    
Status: (?)    
Category: (?)    
Group: (?)    
Show only: Submitter username :   
Summary keyword:   
Sort By: (?)



# Main tools

- How to choose?
  - free vs. commercial
  - featurism vs. ease of use
  - technical requirements
  
- A comprehensive list of tools  
[www.software-pointers.com/en-defecttracking-tools.html](http://www.software-pointers.com/en-defecttracking-tools.html)
  
- Most popular tools
  - Bugzilla, Mantis, GNATS, Flyspray

# Bug report writing guidelines

- One issue per report
- Make sure it is not reported yet
- How to write useful bug report
  - Summary: short but quickly and uniquely identifies bug
  - Be specific: product, version, component, platform, OS  
include list of third party software used
  - Reproducible: provide least amount of steps

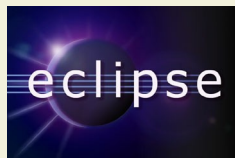
# Public bug trackers



[bugzilla.mozilla.org](https://bugzilla.mozilla.org)



[netbeans.org/community/issues.html](https://netbeans.org/community/issues.html)



[bugs.eclipse.org/bugs/](https://bugs.eclipse.org/bugs/)



[bugs.debian.org](https://bugs.debian.org)