Bug tracking tools

Outline

Why need Bug Tracking tool?
Life-cycle of a "bug report"
Bug report attributes
Bug tracking events
Main tools
Guidelines
Public bug trackers

Why need Bug Tracking tool?

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

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

Bug report attributes

<table>
<thead>
<tr>
<th>Report ID</th>
<th>Summary</th>
<th>Open Date</th>
<th>Priority Assigned To</th>
<th>Submitted By</th>
</tr>
</thead>
<tbody>
<tr>
<td>123456</td>
<td>Daily Fix</td>
<td>2023-04-25</td>
<td>Low</td>
<td>John Doe</td>
</tr>
</tbody>
</table>
Bug report attributes

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

Bug tracking events

- Open, update and close report

Search among reports

- Open, closed, deleted, assigned

Search among reports

- Category: GUI, installation, certain module

Reproduction description (e.g. attaching core dump)

Main tools

- How to choose?
  - free vs. commercial
  - featurism vs. ease of use
  - technical requirements

- A comprehensive list of tools

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
- netbeans.org/community/issues.html
- bugs.eclipse.org
- bugs.debian.org