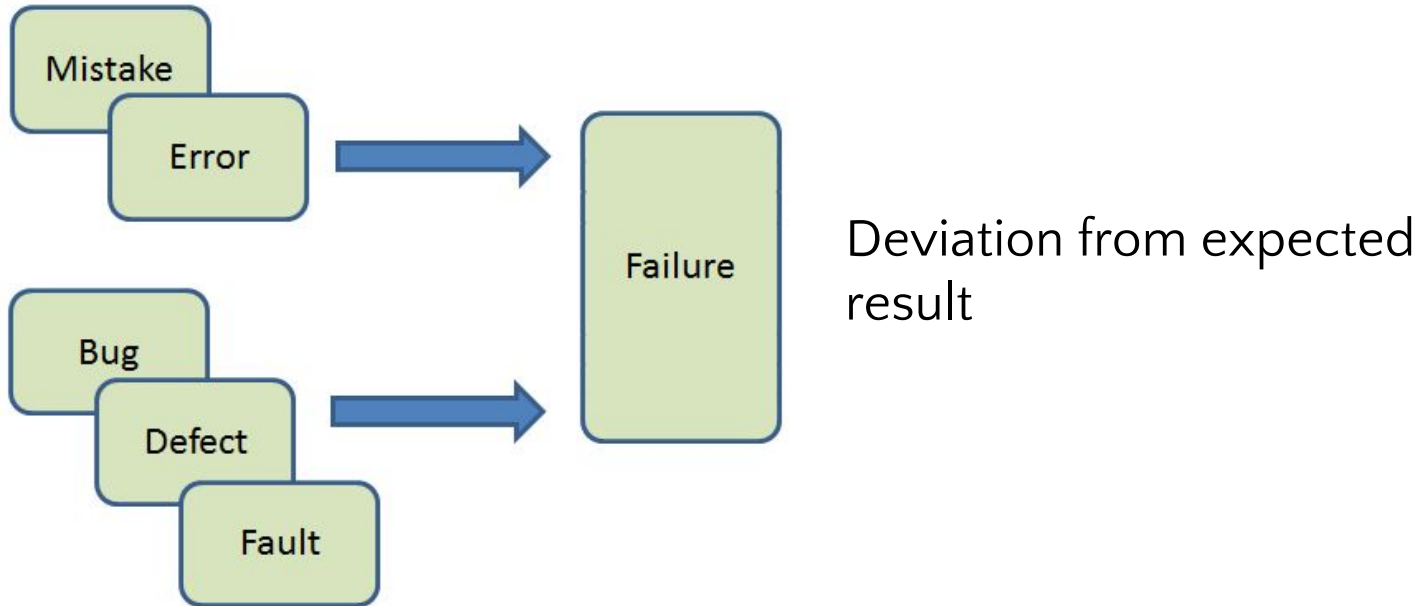# Defect Tracking

October 2014

Agenda

- *Definitions*

- *Why do we need defect reports?*

- *Defect Life Cycle*

- *Defect Report*

- *Defect Reporting Tips*

- *Defect Tracking Tools. Jira*

Definitions

Mistake (**Error**) – human action that produces incorrect result

Deviation from expected result

Defect (**Bug**, **Fault**) – a flaw in a component or system that can cause the component or system to fail to perform its required function

Incident – any event occurring that requires investigation

Definitions

Defect Report – a document reporting on any flaw in a component or system that can cause the component or system to fail to perform its required function.
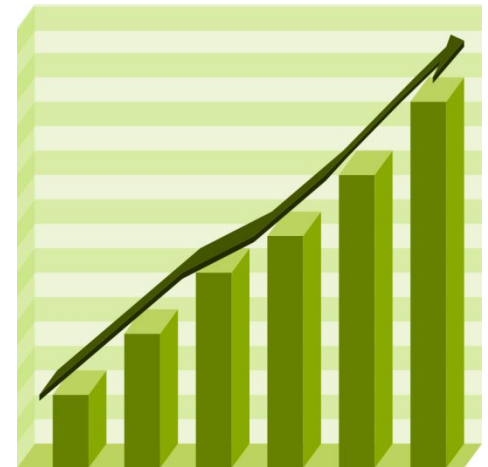
Defect is considered as **reported** if:

✔   it is entered into Defects Database

✔   it contains enough information to reproduce and analyze it
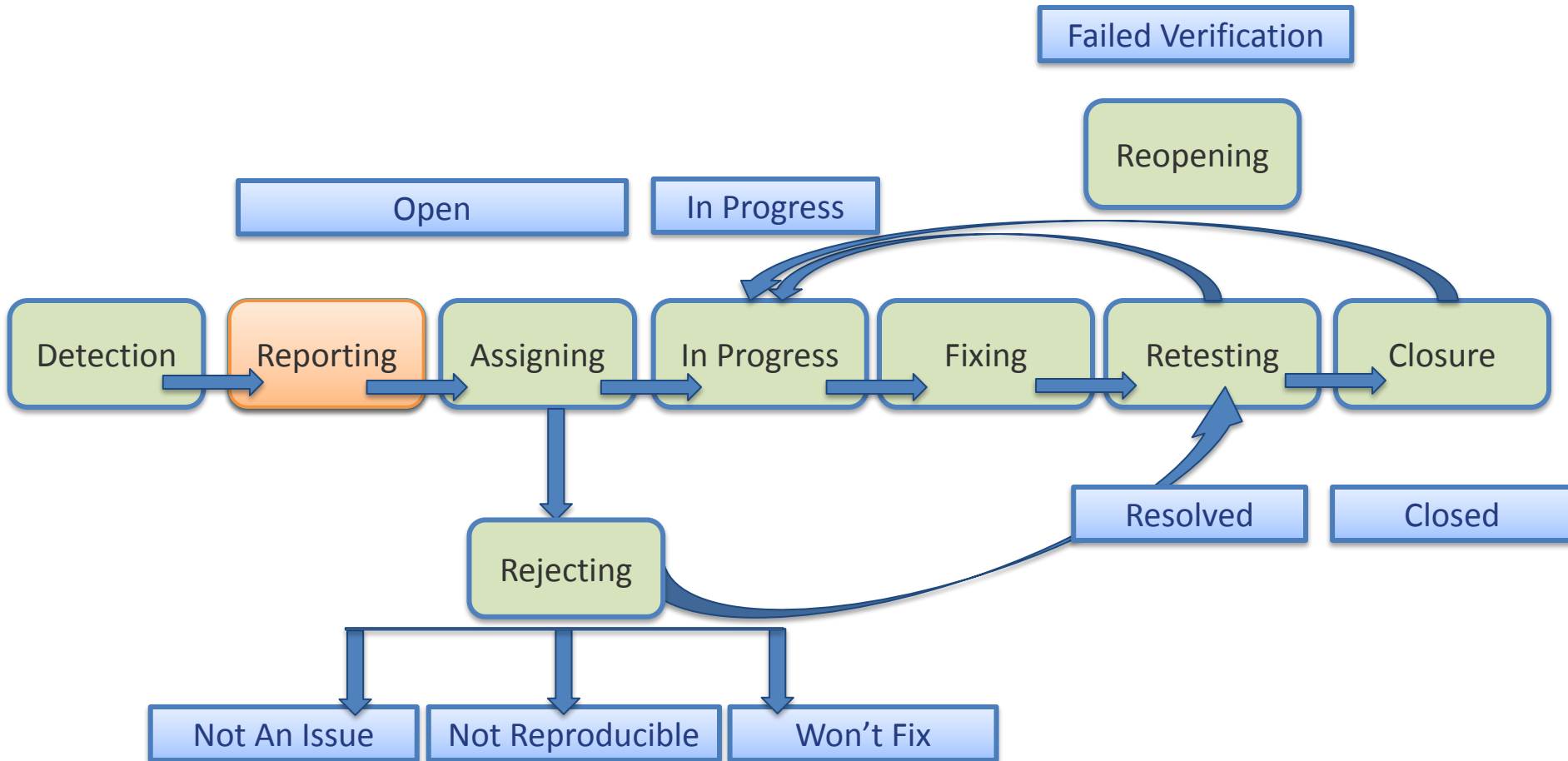
Why do we need Defect reports?

✔ To provide programmers, managers and others with detailed information about the behavior observed and the defect.

✔ To support the analysis of trends in aggregate defect data, either for understanding more about a particular set of problems or tests or for understanding and reporting the overall level of system quality.

✔ Give information that can lead to development and test process improvements

Defect Life Cycle

Failed Verification

Reopening

Open

In Progress

Detection → Reporting → Assigning → In Progress → Fixing → Retesting → Closure

Rejecting

Resolved

Closed

Not An Issue

Not Reproducible

Won't Fix

Test Incident Report (Defect Report)

According to IEEE 829 Test Incident Report consists of:

✔ Test Incident Report identifier

✔ Summary

✔ Incident Description
- ✔ Inputs
- ✔ Expected Results
- ✔ Actual Results
- ✔ Anomalies
- ✔ Date and Time
- ✔ Procedure Step
- ✔ Attempts to Repeat
- ✔ Testers
- ✔ Observers

✔ Impact
- ✔ Severity
- ✔ Priority

Severity and Priority

Severity – the degree of impact that a defect has on the development or operation of a component or system

Priority – the level of business importance assigned to an item, e.g. defect

- Impact on functionality
- How serious is the bug?

- Scheduling
- How soon to fix the bug?

Defect Reporting Tips

✔ Try to reproduce symptoms when you see them

✔ Try to isolate the defect by making carefully chosen changes to the steps used to reproduce it

✔ Ensure that this bug is not reported yet

✔ Gather as many details as you can:
- Put down Build# and Environment
- Make a screenshot or even a video
- Gather error logs if any

✔ Be clear and unambiguous. Be neutral, fact–focused and impar

✔ Report all defect, you have observed

Defect Tracking Tools

Defect Tracking Tool – a tool that facilitates the recording and status tracking of defects and changes.
They often have workflow–oriented facilities to track and control the allocation, correction and re–testing of defects and provide reporting facilities.

Defect tracking tools used at SoftServe projects:
- Seapine TestTrack Pro
- Bugzilla
- FogBugz
- JIRA
- Mantis
- Team Foundation Server (TFS)
- and many others...

Defect Tracking Tools

✔ Collect defect/request records

✔ Assign defect/request record to the responsible person

✔ Collect defect/request history

✔ Find defect/request by defined condition

✔ Filter defect/request list by defined condition

✔ Close defect/request record

✔ Additionally, export defects

Defect Tracking Tool

Defect Reporting

1. Click Create Issue
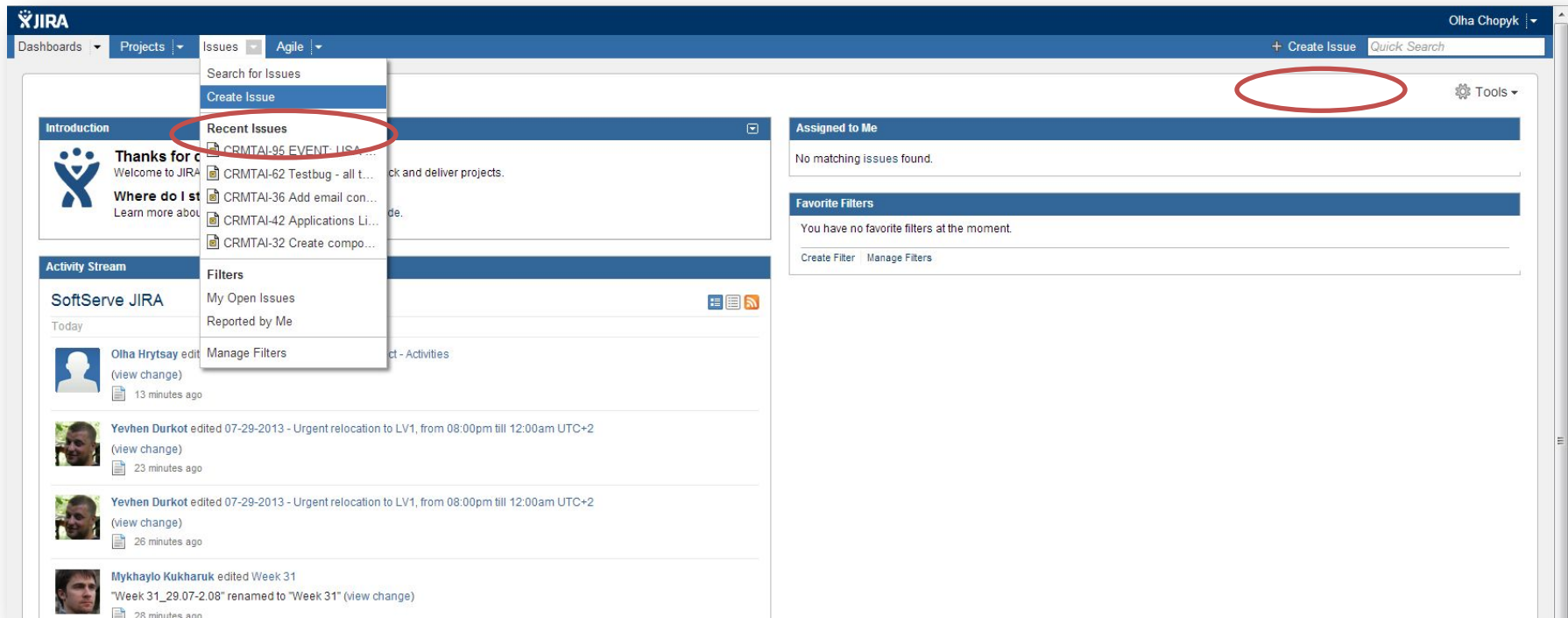
Defect Tracking Tool

2. Select 'Issue type' = "Bug"

3. Set short and clear Summary

Defect Tracking Tool

4. Select Priority* of the defect

5. Select component, where you've found the defect, and affected version

- *Originally, JIRA did have both a Priority and a Severity field. The Severity field was removed for a number of reasons [...] In order to re-implement Severity, you can create a select-list custom field*

Defect Tracking Tool

6. Put down Description, Steps, Actual and Expected results into Description field

7. Set all other fields like estimate or Documentation link

8. Attach screenshots, logs, etc.

9. Assign to appropriate person

10. Click 'Save' button

Defect Tracking Tool

Defect filtering

1. Use configurable filter to find defect by its parameter
2. Use quick search to open exact item if you know its number

Defect Tracking Tool

Other features

1. Use **link** icon to get permanent link of your unsaved filter
2. Use **share** button to share filter with other team members
3. Use **bulk change** if you need to make same change for numerous defects (i.e. change release or assignments)
4. Use **views** menu to set up defect list view

⊠ Share 👁 Views ▾ ⚙ ▾

Bulk Change:

maximum 1,000 issues

current page

Configure Columns
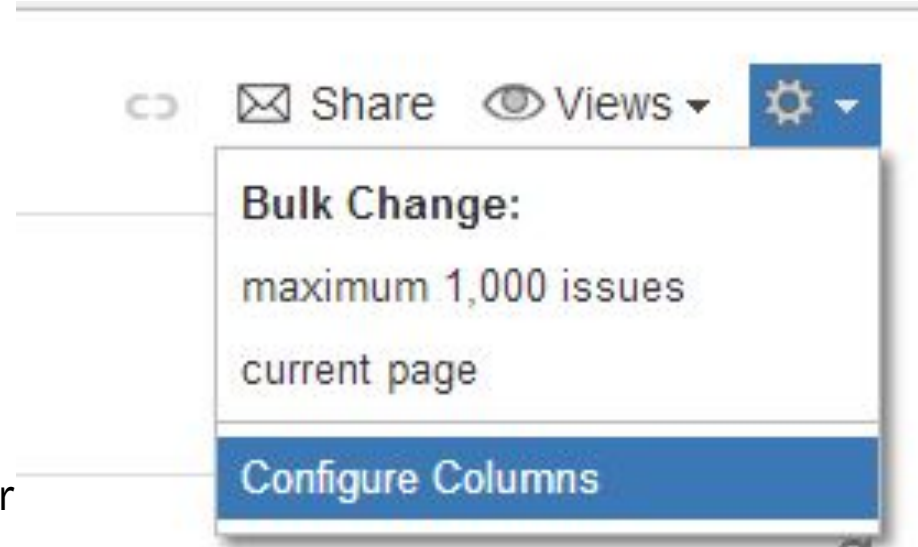
All these filtering abilities are very helpful for defects analysis and statistic gathering

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US OFFICES
Austin, TX
Fort Myers, FL
Boston, MA
Newport Beach, CA
Salt Lake City, UT

EUROPE OFFICES
United Kingdom
Germany
The Netherlands
Ukraine
Bulgaria

EMAIL
info@softserveinc.com

WEBSITE:
www.softserveinc.com

USA TELEPHONE
Toll-Free: 866.687.3588
Office: 239.690.3111

UK TELEPHONE
Tel: 0207.544.8414

GERMAN TELEPHONE
Tel: 0692.602.5857