Issue Tracking

PV260 Software Quality

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Outline

- Capabilities of modern issue tracking systems
- Relation to software quality and other SDLC tools
- Examples

Gartner Magic Quadrant – SDLC Tools

Leaders in Feb 2015

- Microsoft
- IBM
- **Atlassian**
- VersionOne
- Rally

Issue Tracking

What is the purpose of issue tracking systems?

What kind of data can issue tracking cover?

Issue Tracking

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- Help get things done

What data does issue tracking system manage?

- *What are the basic questions a project plan should cover?*

Issue Tracking

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- Help get things done

What data does issue tracking system manage?

PM Perspective	Issue Tracking
What	Projects, Components, Issues
Who	Users (in different roles)
When	Calendar, Versions, Dates
How	Issue workflow

“What” – Organizational Context and Issues

Issue tracking systems should be **flexible** and reflect company’s structure and portfolio.

- Products (Components), Releases (Versions), Projects, Project Team, Project Roles, …

*What is an **issue** in context of issue tracking?*

“What” – Organizational Context and Issues

Issue tracking systems should be **flexible** and reflect company’s structure and portfolio.

- Products (Components), Releases (Versions), Projects, Project Team, Project Roles, …

Issue

- Represents a **piece of work to be done.**
- Exists in a given project.
- Contains summary, description, reporter, assignee, time estimate, product version, …

“What” – More flexibility with Isuses

Custom fields examples

- Participants, Definition of Done, Verification Criteria,

Other issue data

- Attachment, screenshots, comments, proxies to entities from other systems (wiki pages, builds, source code, …)

Issue type examples

- Task, Defect, User Story, Change Request, …
- Risk, Review, Review Finding, Audit, Approval, Bonus Proposal, …

“Who” and “When”

Who – Users in different roles

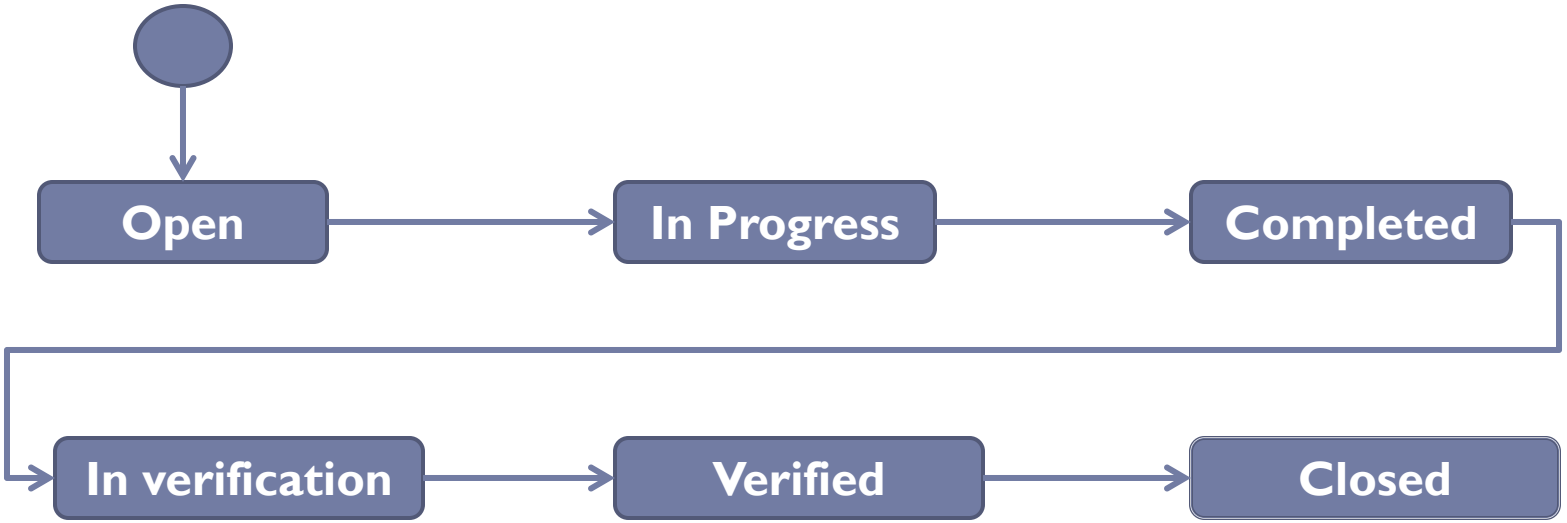
- **Reporter** wants the work to be done and creates an issue.
- **Assignee** works on the issue.
- + any custom roles (Tester, Participant, …)

When

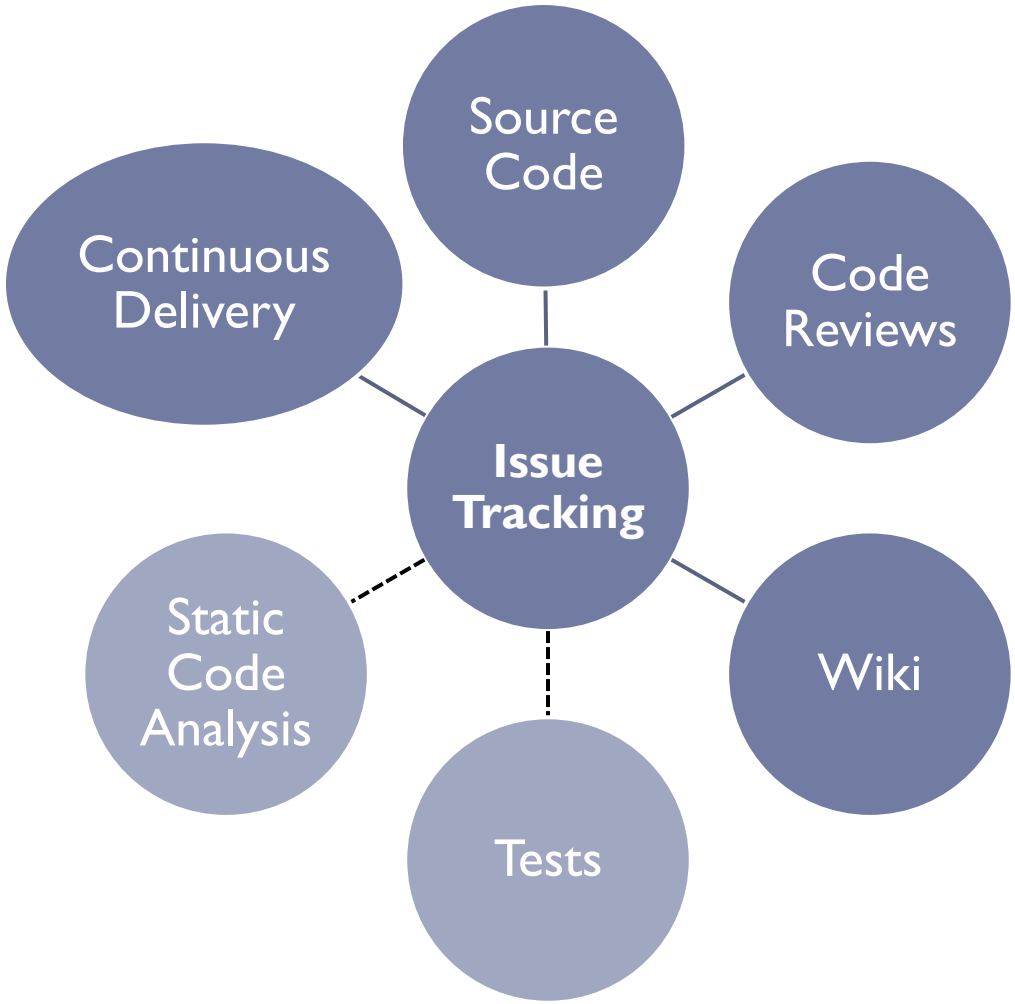
- Calendar for every project
- Product versions

“How” – Issue Workflow

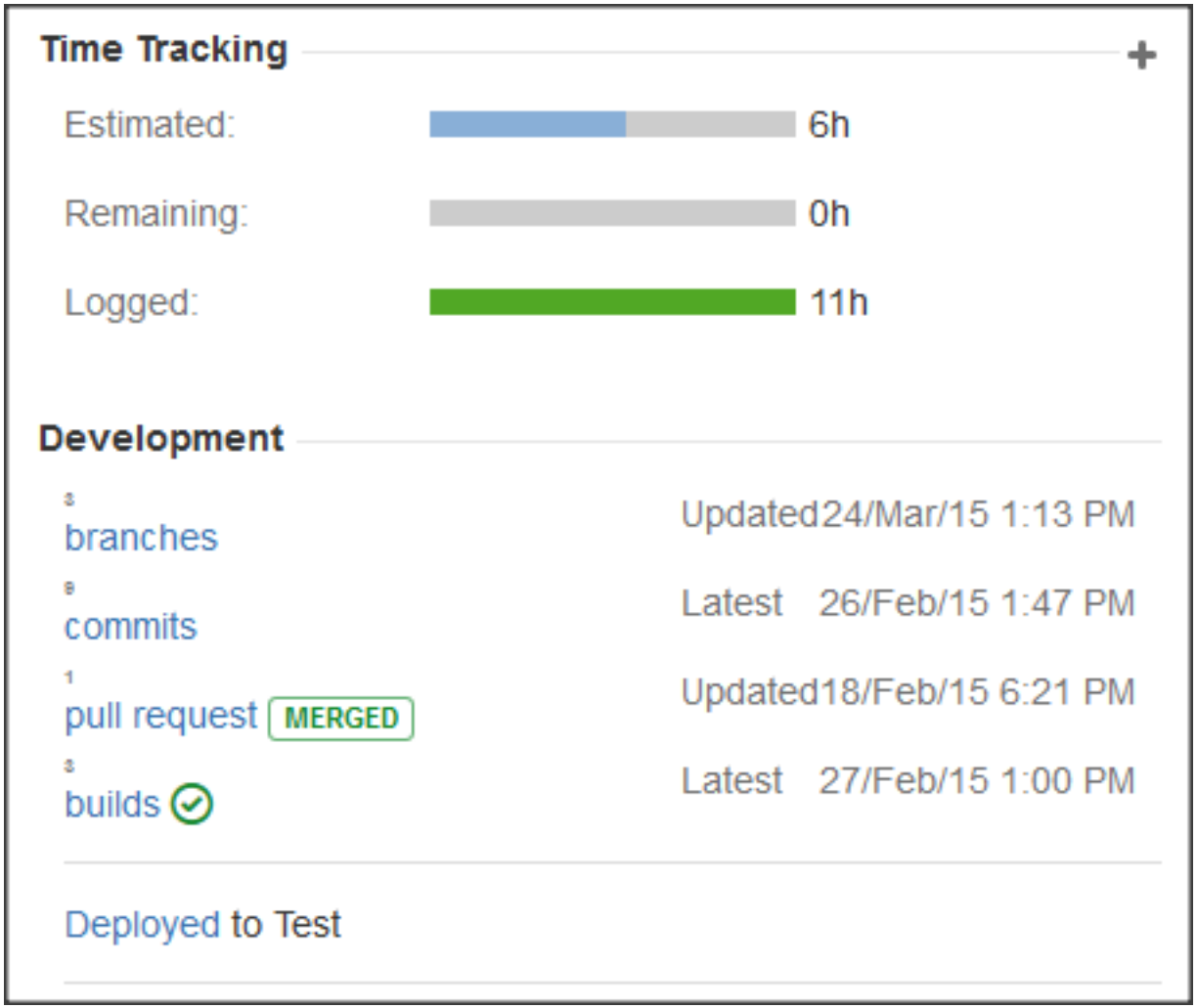
- **Workflow is a state diagram** where transitions are allowed for users in certain roles.
- Workflow is created for issue type in project.



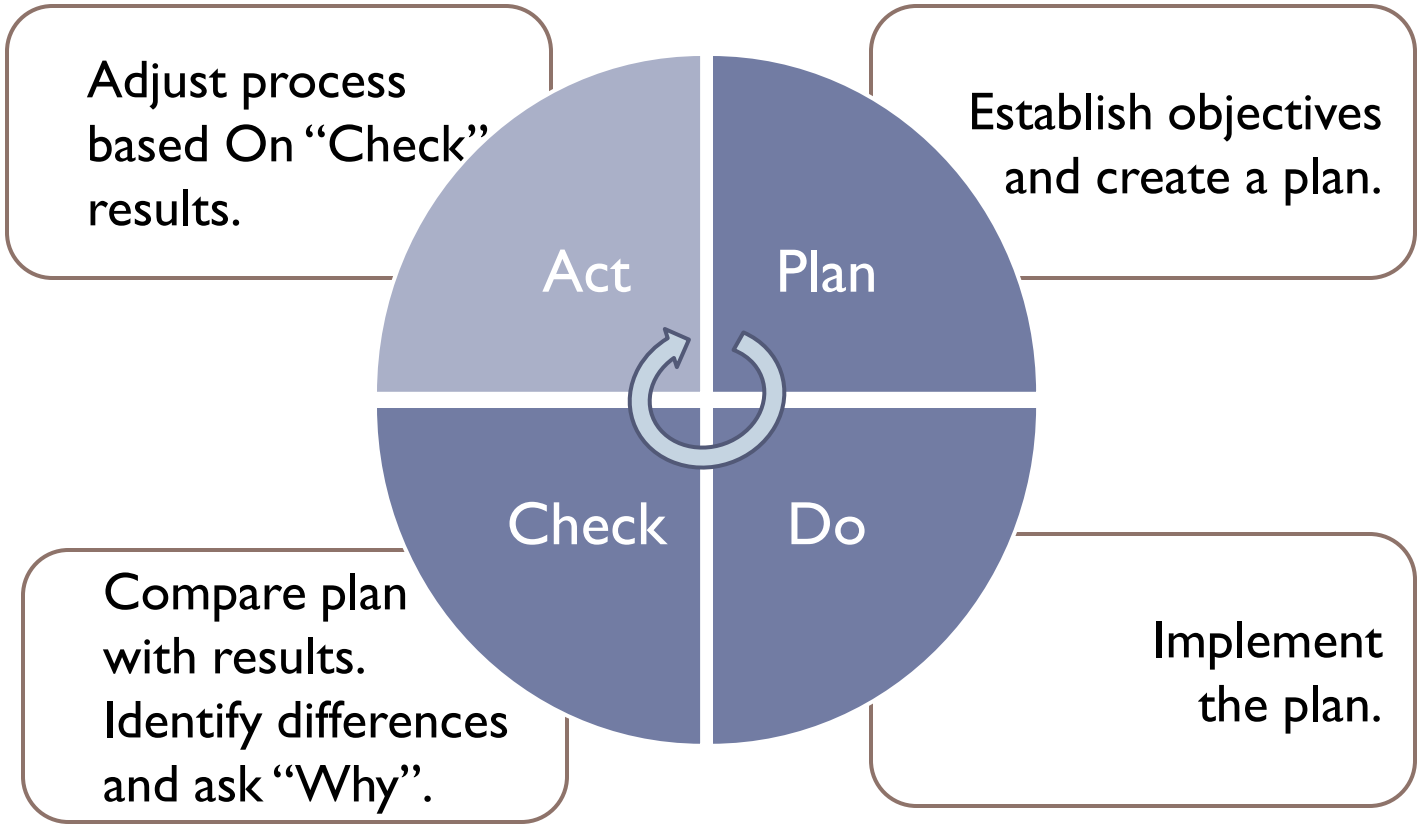
Issue Tracking – Ultimate Integrator



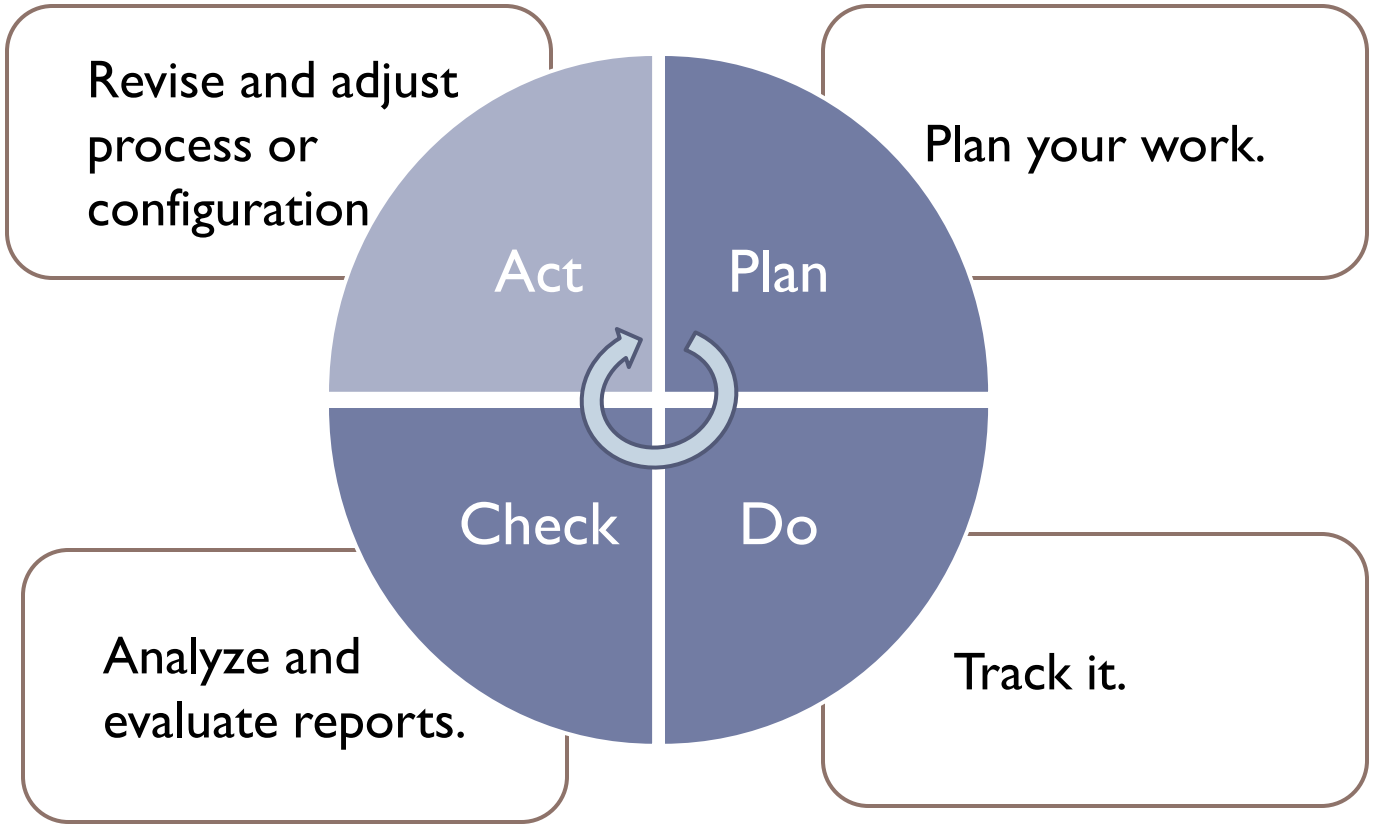
Examples – Issue Detail



Deming Cycle (PDCA)



Issue Tracking and the Deming Cycle



Main Takeouts

Flexibility, managed work, possibility to improve

- Tool suites your needs and your way of work.
- You know what is planned to be done, who should do it and how.
- You also know what was done, who did it and how long did it take.
- You can compare, analyze and revise how you do things.

Integrate your issue tracking system with other SDLC tools

- Link source code to the requirements, see whether it can compile, whether it was tested and where was it deployed.

Q & A