Testing management tools & JIRA

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Testing management tools & JIRA

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Leading in IT Education
matrix company

Objectives

- By the end of this session
  - You'll understand the structure of testing management tools
  - You'll get familiar with JIRA

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Testing management tools

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Testing management tools

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The structure

Requirement

Test Plan

Test Lab

Defects

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The structure

Requirements

- Identifies the “WHAT” of testing

  What needs to be tested, AND

  What are you going to validate about it

- Includes both normal and error conditions
- Covers business rules, functionality, non-functional standards
- Do NOT have case specific data values assigned to them yet (data appears in test cases, the “How” of testing) examples…

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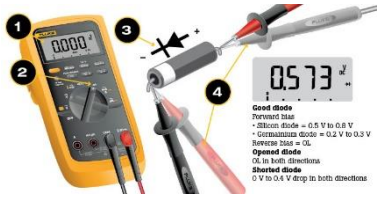
The structure

Test cases

- A set of conditions under which a tester will determine whether an application, software system or one of its features is working as it was originally established for it to do.
- Test cases functionality should cover the tested system requirements
- Test plan tree is one of the most critical definition at the testing area



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Test cases - sample

Pre-Conditions	Test Case	Test Steps	Test Results
<some Pre-condition>	Verify Login functionality with correct credentials	1. Navigate to <Enter URL Here>. 2. Enter Username : <Username>. 3. Enter Password: <Password> 4. Click on Submit button.	1. User navigates to Login Page. 2. User can enter username. 3. User can enter Password. 4. Home Page Opens.
<some Pre-condition>	Verify Login Functionality with incorrect username.	1. Navigate to <Enter URL Here>. 2. Enter Username : <Username>. 3. Enter Password: <Password> 4. Click on Submit button.	1. User navigates to Login Page. 2. User can enter username. 3. User can enter Password. 4. Error Message <Error Message Here> displayed.
<some Pre-condition>	Verify Login Functionality with correct username and incorrect password.	1. Navigate to <Enter URL Here>. 2. Enter Username : <Username> 3. Enter Password: <Password> 4. Click on Submit button.	1. User navigates to Login Page. 2. User can enter username. 3. User can enter Password. 4. Error Message <Error Message Here> displayed.

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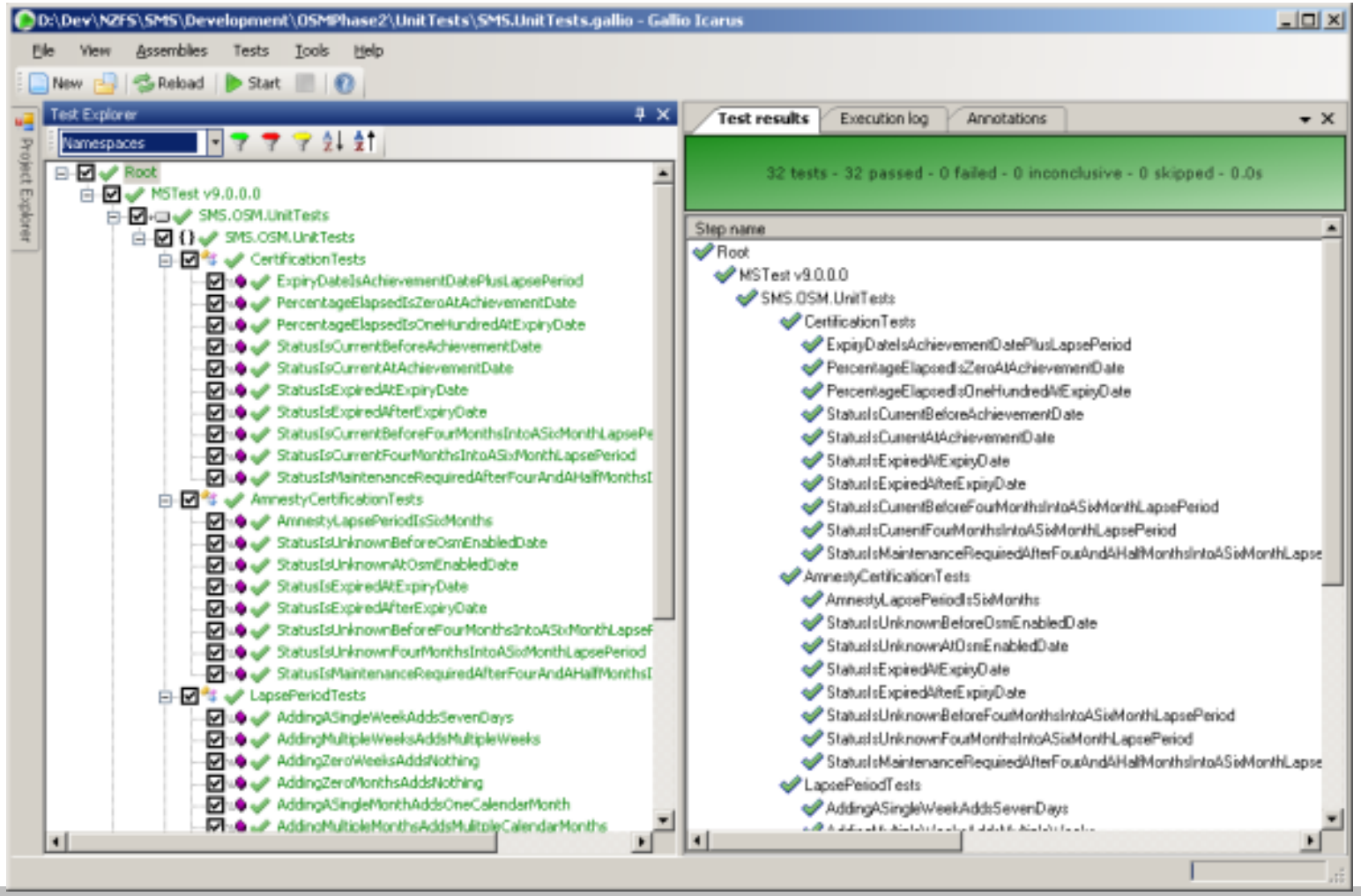
Test execution



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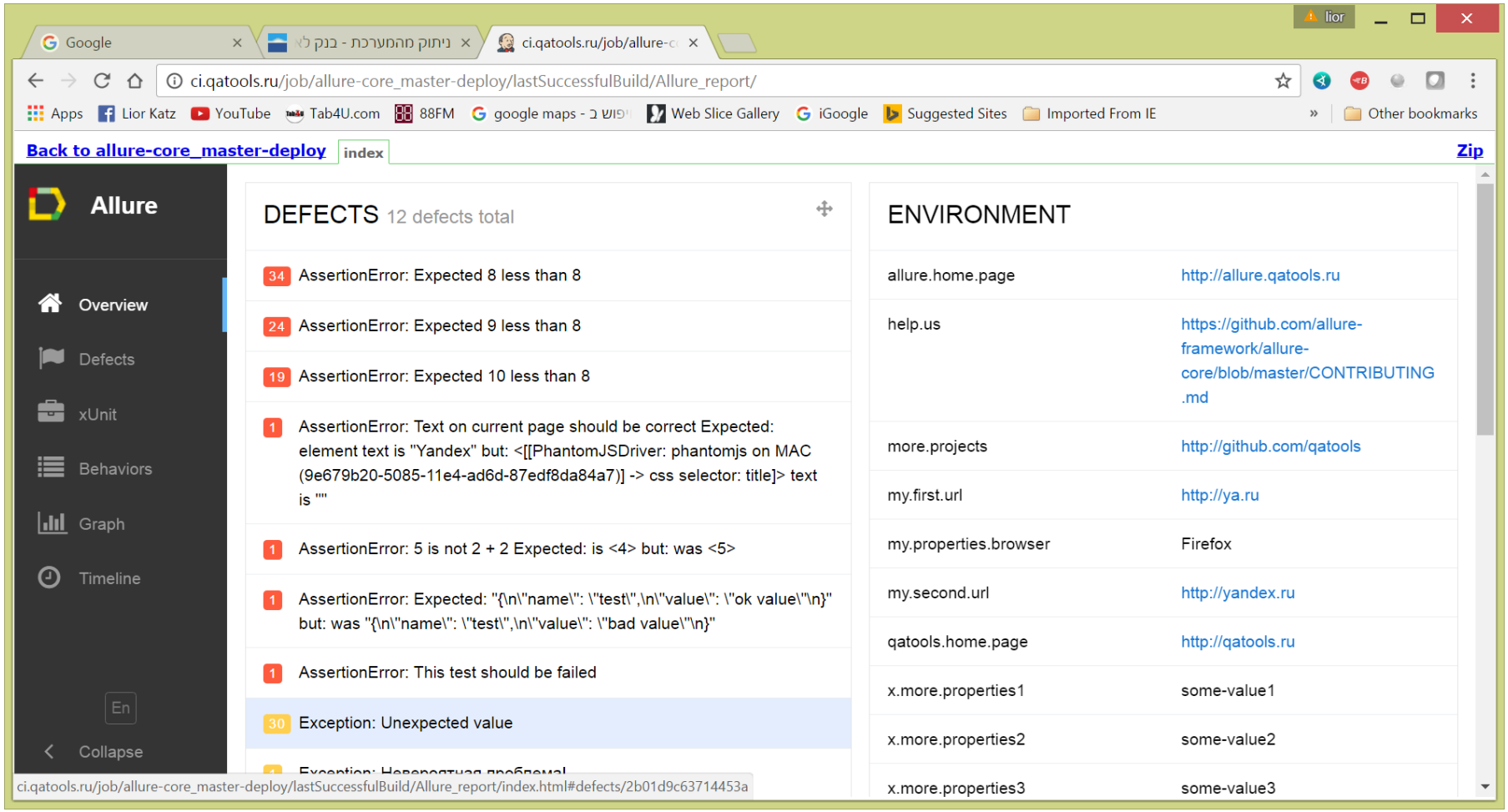
Test execution



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The structure

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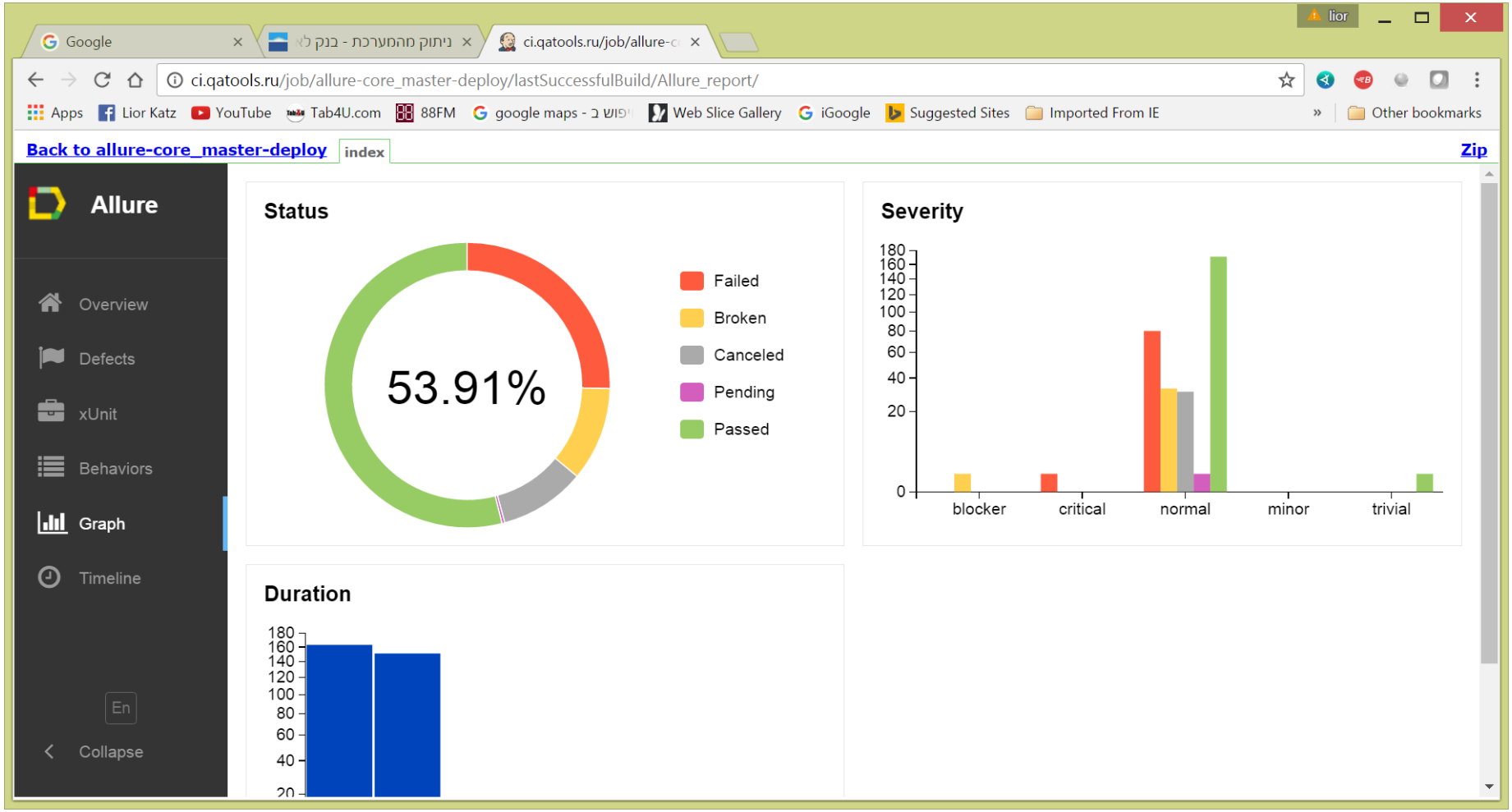
Test execution – Reports



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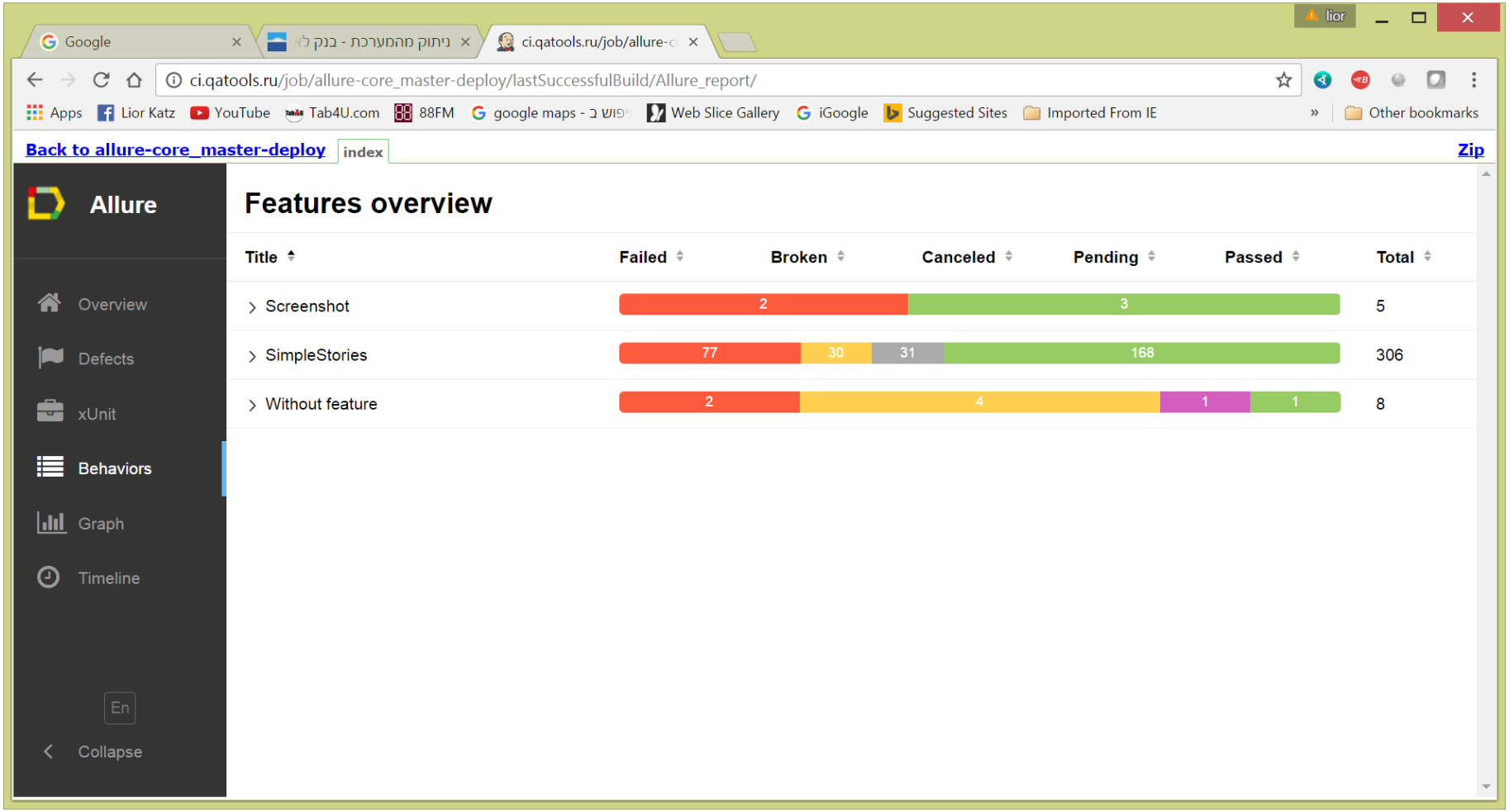
Test execution – Reports



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The structure

Defects description

- A defect is an error or a bug, in the application which is created. A programmer while designing and building the software can make mistakes or error. These mistakes or errors mean that there are flaws in the software. These are called defects.

- When actual result deviates from the expected result while testing a software application or product then it results into a defect. Hence, any deviation from the specification mentioned in the product functional specification document is a defect. In different organizations it's called differently like bug, issue, incidents or problem.

- When the result of the software application or product does not meet with the end user expectations or the software requirements then it results into a Bug or Defect. These defects or bugs occur because of an error in logic or in coding which results into the failure or unpredicted or unanticipated results.

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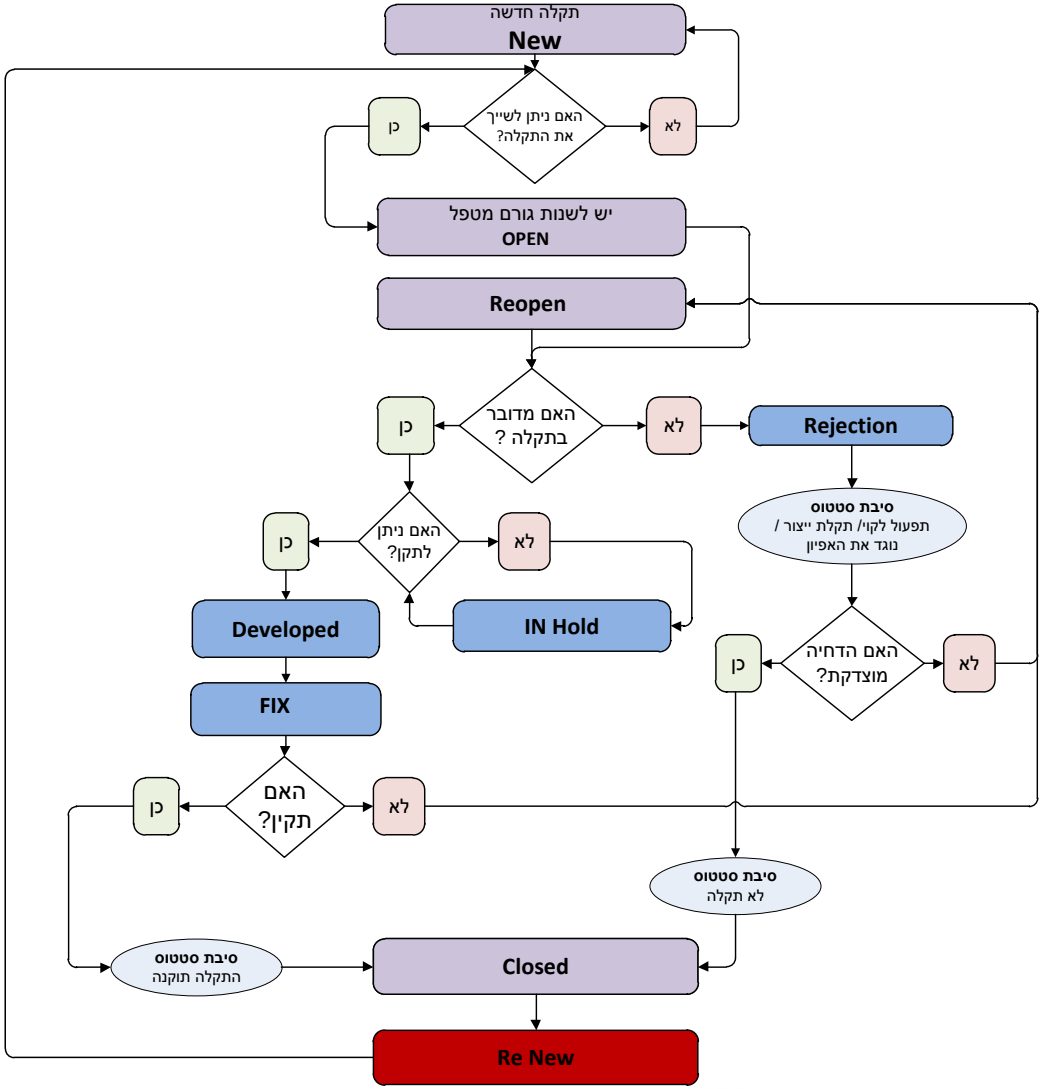
The structure

defects work flow



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ALM & Testing management tools

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Jira

next testing tool management generation

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Basic questions

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- What is JIRA? — In simple terms:

  “JIRA is an issue tracker”

- Is it web based? — Yes
- Is it open source? — Yes
- Is it a licensed product? — Yes
- Whose product is JIRA? — www.atlassian.com

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Before we jump into JIRA

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we MUST understand what is Agile/scrum/issues

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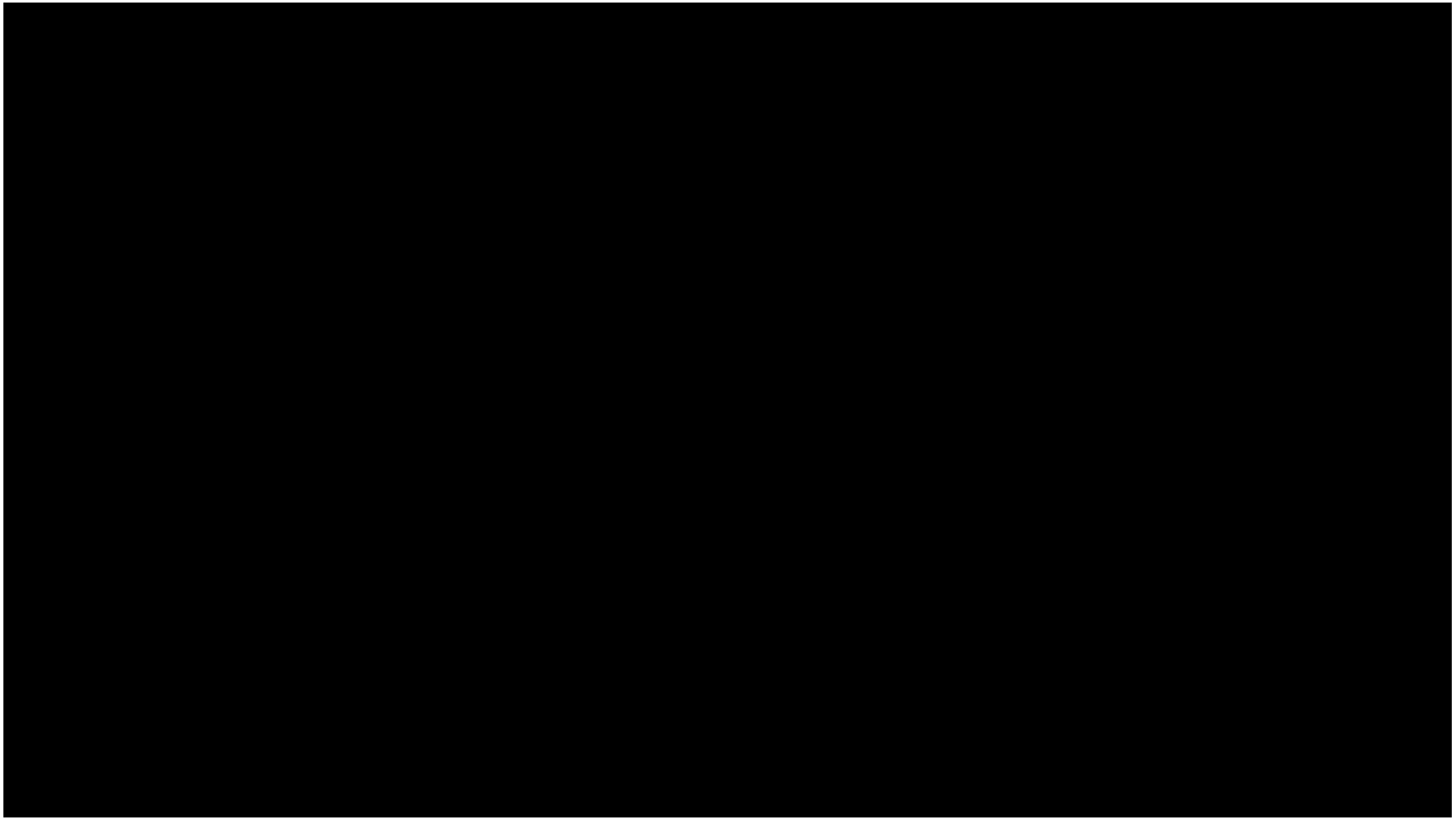
Agile the ability to deliver customer satisfaction



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Agile manifesto

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The Agile Manifesto – a statement of values

Individuals and interactions	over	Process and tools
Working software	over	Comprehensive documentation
Customer collaboration	over	Contract negotiation
Responding to change	over	Following a plan

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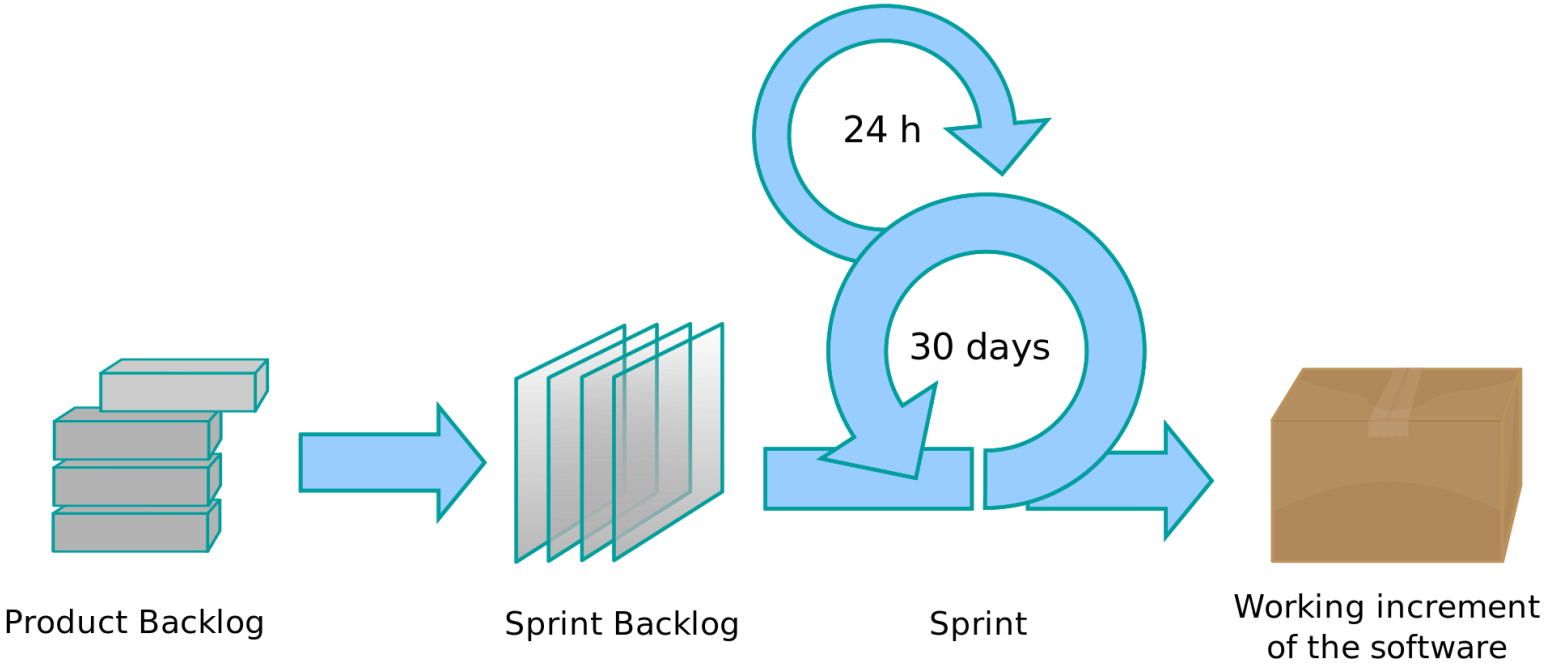
Scrum definition

- **Scrum** is an iterative and incremental agile software development framework for managing product development.



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What is a sprint/backlog/burn down and we can move forward chart

- Sprint – a short period of time to deliver the customer his requirements, include the development & the testing capacity
- Product backlog - a list of requirements that is maintained for a product developed using the Scrum methodology
- burn down chart - is a graphical representation of work left to do versus time

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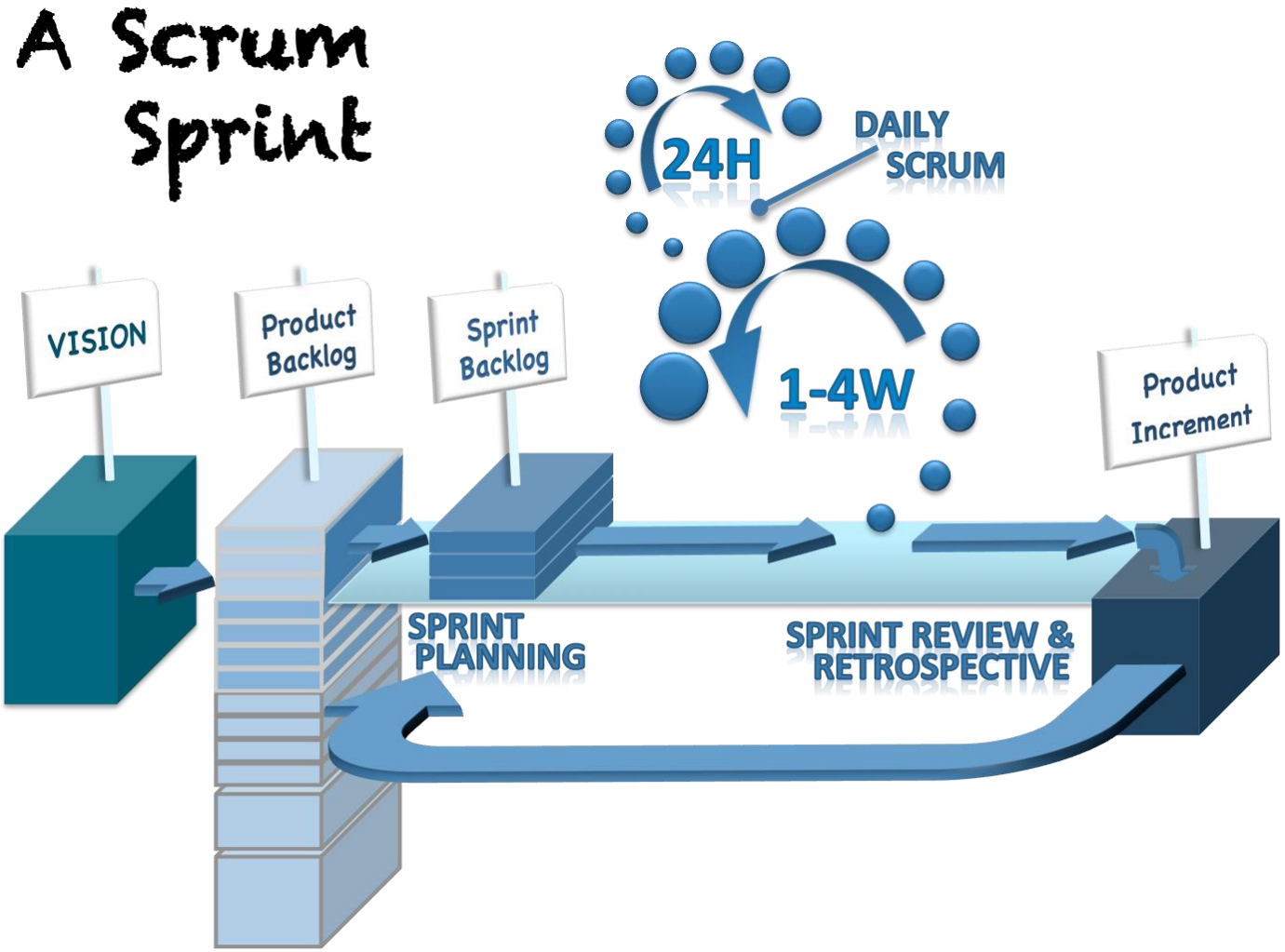
Sprint



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BackLog

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	Item #	Description	Est	By
Very High				
	1	**Finish database versioning**	16	KH
	2	**Get rid of unneeded shared Java in database**	8	KH
	-	**Add licensing**	-	-
	3	Concurrent user licensing	16	TG
	4	Demo / Eval licensing	16	TG
		Analysis Manager		
	5	File formats we support are out of date	160	TG
	6	Round-trip Analyses	250	MC
High				
	-	**Enforce unique names**	-	-
	7	In main application	24	KH
	8	In import	24	AM
	-	**Admin Program**	-	-
	9	Delete users	4	JM
	-	**Analysis Manager**	-	-
	10	When items are removed from an analysis, they should show up again in the pick list in lower 1/2 of the analysis tab	8	TG
	-	**Query**	-	-
	11	Support for wildcards when searching	16	T&A
	12	Sorting of number attributes to handle negative numbers	16	T&A
	13	Horizontal scrolling	12	T&A
	-	**Population Genetics**	-	-
	14	Frequency Manager	400	T&M
	15	Query Tool	400	T&M
	16	Additional Editors (which ones)	240	T&M
	17	Study Variable Manager	240	T&M
	18	Haplotypes	320	T&M
	19	**Add icons for v1.1 or 2.0**	-	-
	-	**Pedigree Manager**	-	-
	20	Validate Derived kindred	4	KH
Medium				
	-	**Explorer**	-	-
	21	Launch tab synchronization (only show queries/analyses for logged in users)	8	T&A
	22	Delete settings (?)	4	T&A

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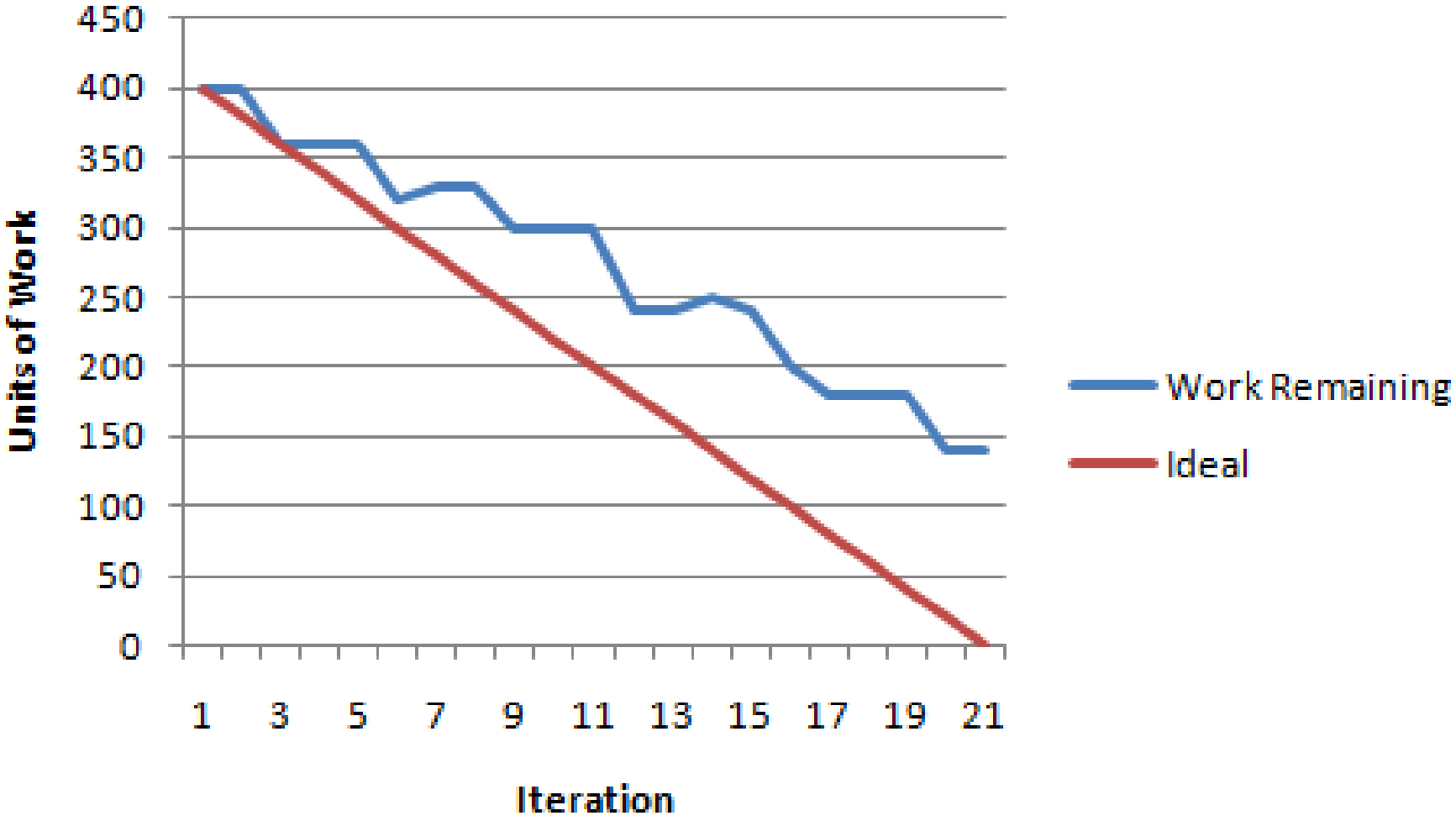
Burn Down chart



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Features (from the creators of JIRA)

- Because you've got issues

  JIRA lets you prioritise, assign, track, report and audit your 'issues,' whatever they may be — from software bugs and help-desk tickets to project tasks and change requests.

- Reporting and statistics

  Customisable reporting allows you to monitor the progress of your issues with detailed graphs and charts.

- Workflow your way

  Map your business process with a custom workflow.

- An extensible platform

  Integrate JIRA into your systems with our open API and 100+ free plugins.

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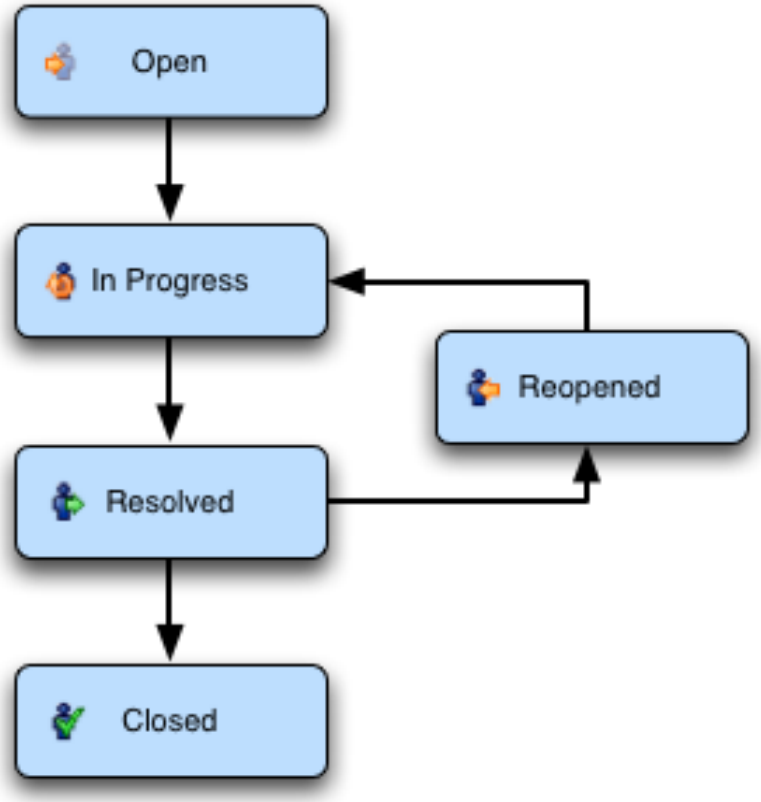
Issues and Workflows

- What is an “Issue”?
  - Any task that requires an action from a person
- What is “Workflow”?
- What are fields?
  - The attributes of an issue (Standard & Custom)



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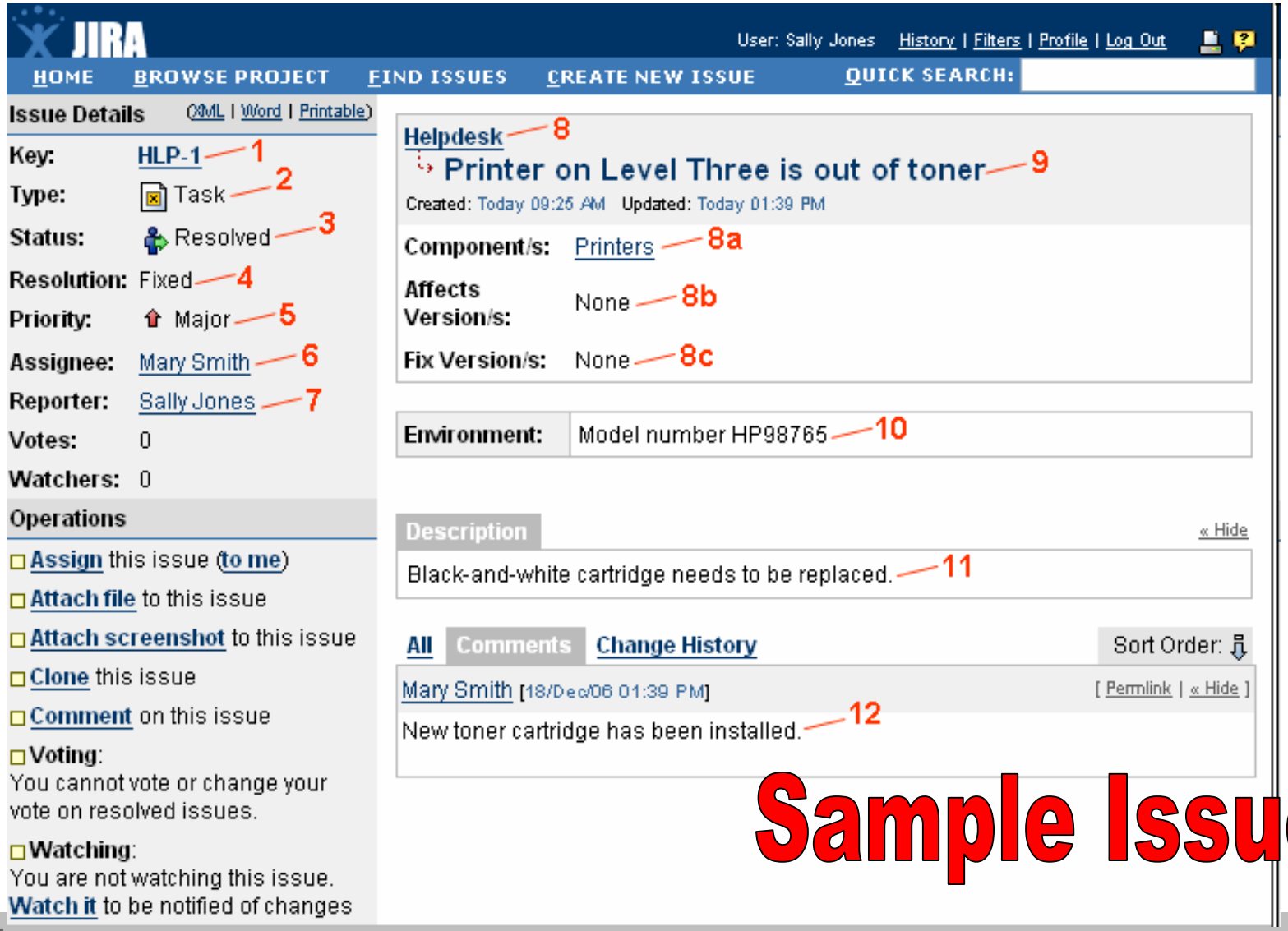
Issue



Sample Issue

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Sample Reports - II

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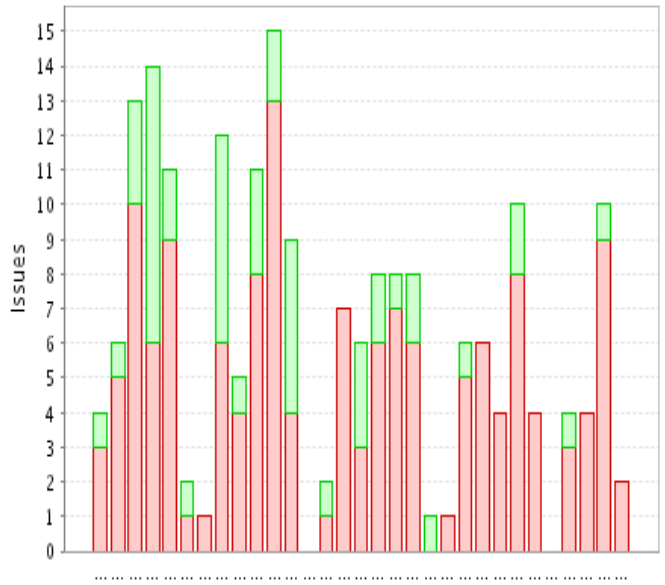
Statistics: **JIRA** (Issue Type)

Bug	4539	45%
Improvement	2711	27%
New Feature	1351	13%
Sub-task	183	2%
Support Request	766	8%
Task	485	5%
Third-party issue	31	

Recently Created Issues: **Confluence** more detail >>



194 issues created in last **30** days.
View detailed data table >>

Statistics Table: JIRA's Last 30 Days Resolved Issues

Priority / Assignee	Critical	Major	Minor	Trivial	T:
Anton Mazkovoi	0	2	0	0	2
Chris Mountford	0	4	1	0	5
Daniel Hurst	0	8	8	2	18
Dushan Hanuska	0	3	0	0	3
Dylan Etkin	2	8	0	0	10
Jed Wesley-Smith	0	2	0	0	2
Jeff Turner	0	1	0	0	1
Justin Koke	2	5	0	2	9
Keith Brophy	1	0	0	0	1
Mark Chaimungkalanont	1	0	0	0	1
Total Unique Issues:	**15**	**92**	**28**	**8**	**143**

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Dashboard

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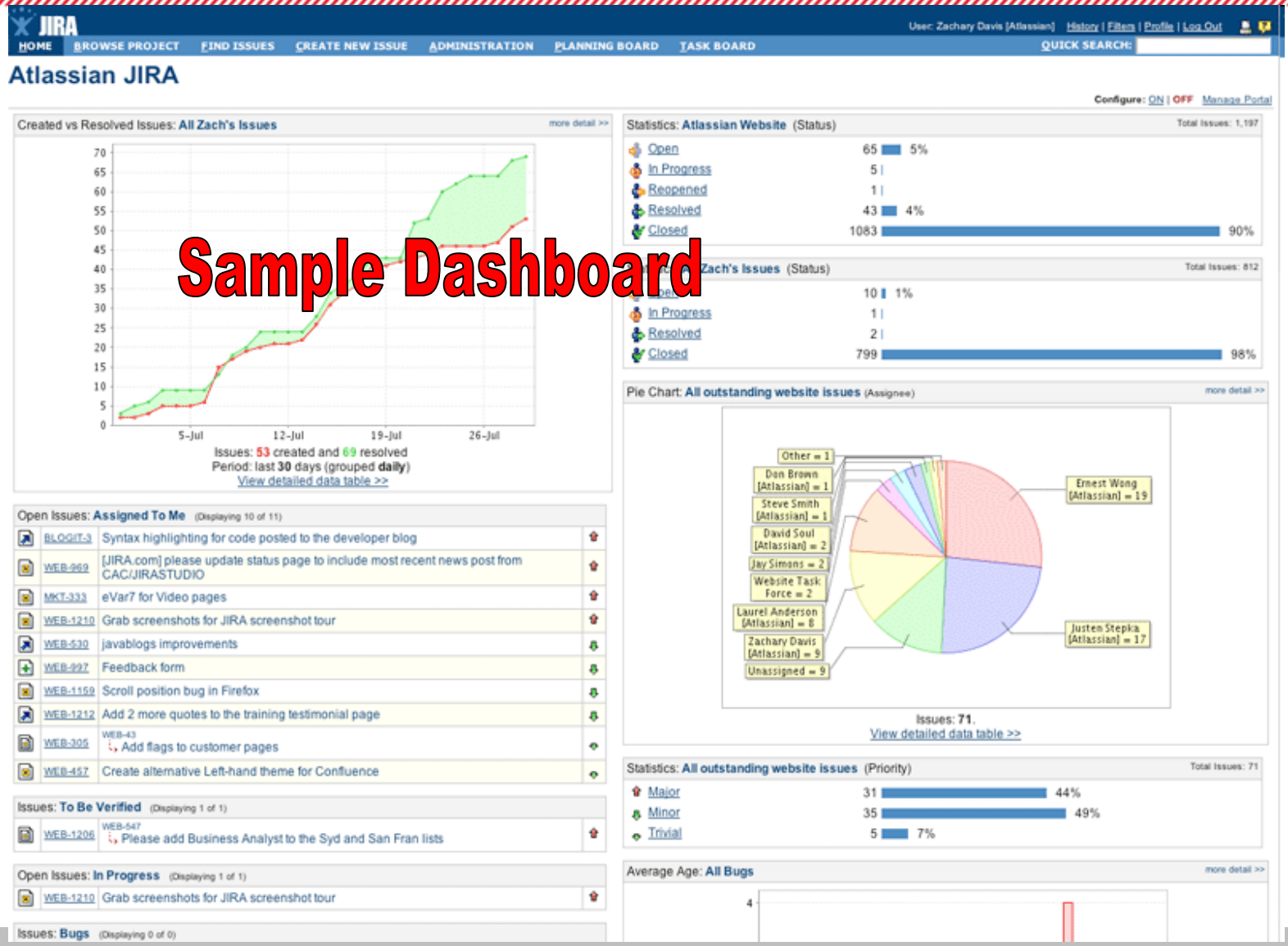

Sample Dashboard

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JIRA for Scrum

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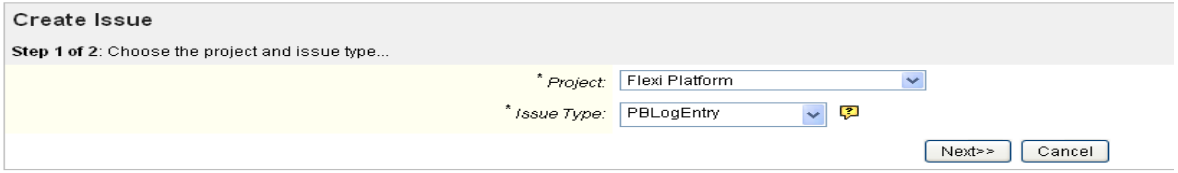
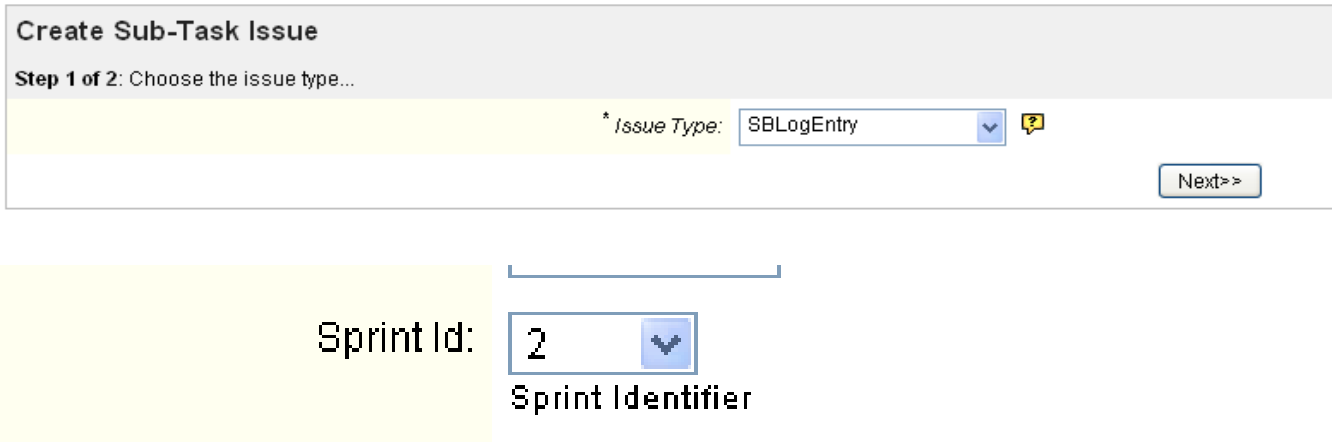
User Stories and Sprint Items

- User stories created as PBLogEntry (Product Backlog Entry)



- Sprint items created as SBLogEntry (Sprint Backlog Entry)



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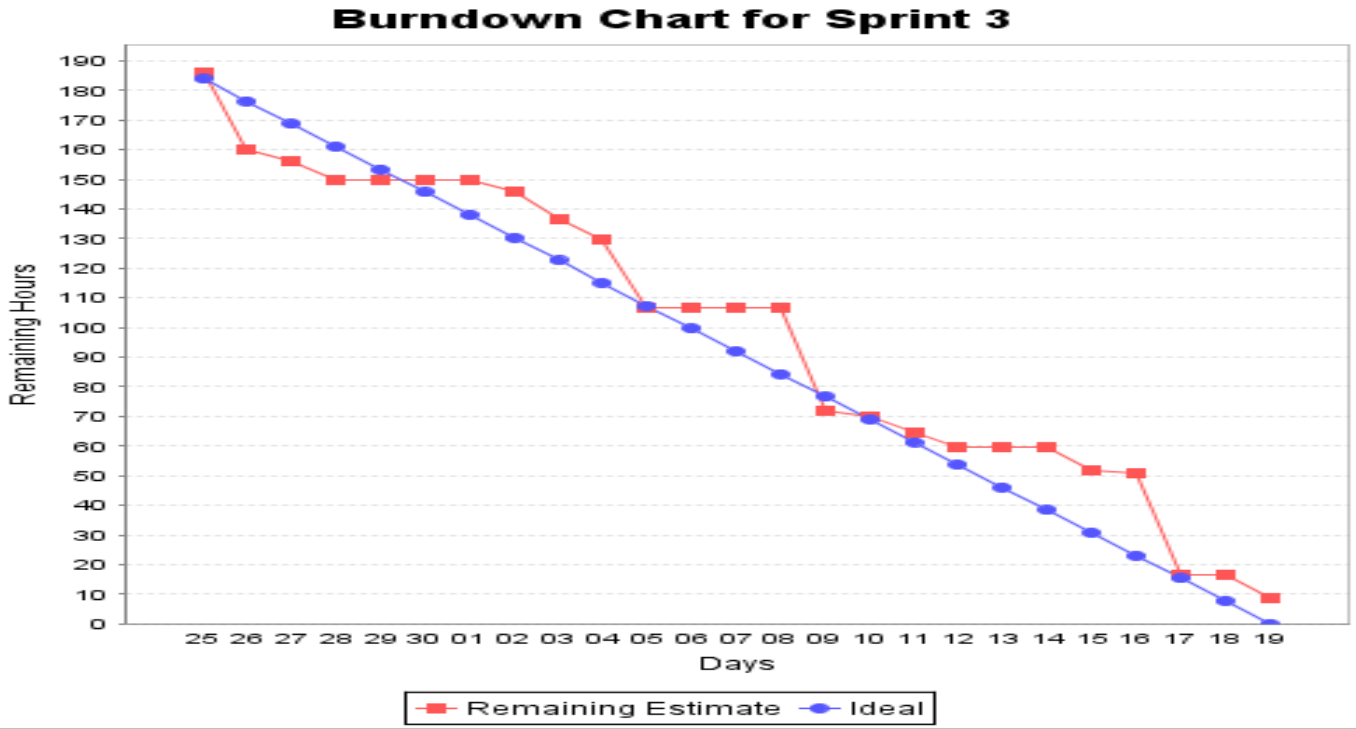
Burn-down Charts

- Original Estimate filled during Spring Planning
- Remaining Estimate updated daily by developers
- Burn down generated using the data in confluence page



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Plan Mode - Scrum

- Prioritize the Backlog.
- Estimate the stories
- Create the sprints
- Story points are available only for Epics and Stories
- Estimations in terms of Hours also possible by configuring the board
- Sub tasks can be created
- The stories can be grouped under each sprint
- The number of issues and the story points / hours are automatically displayed to make plan easier
- At one point of time only one sprint is active

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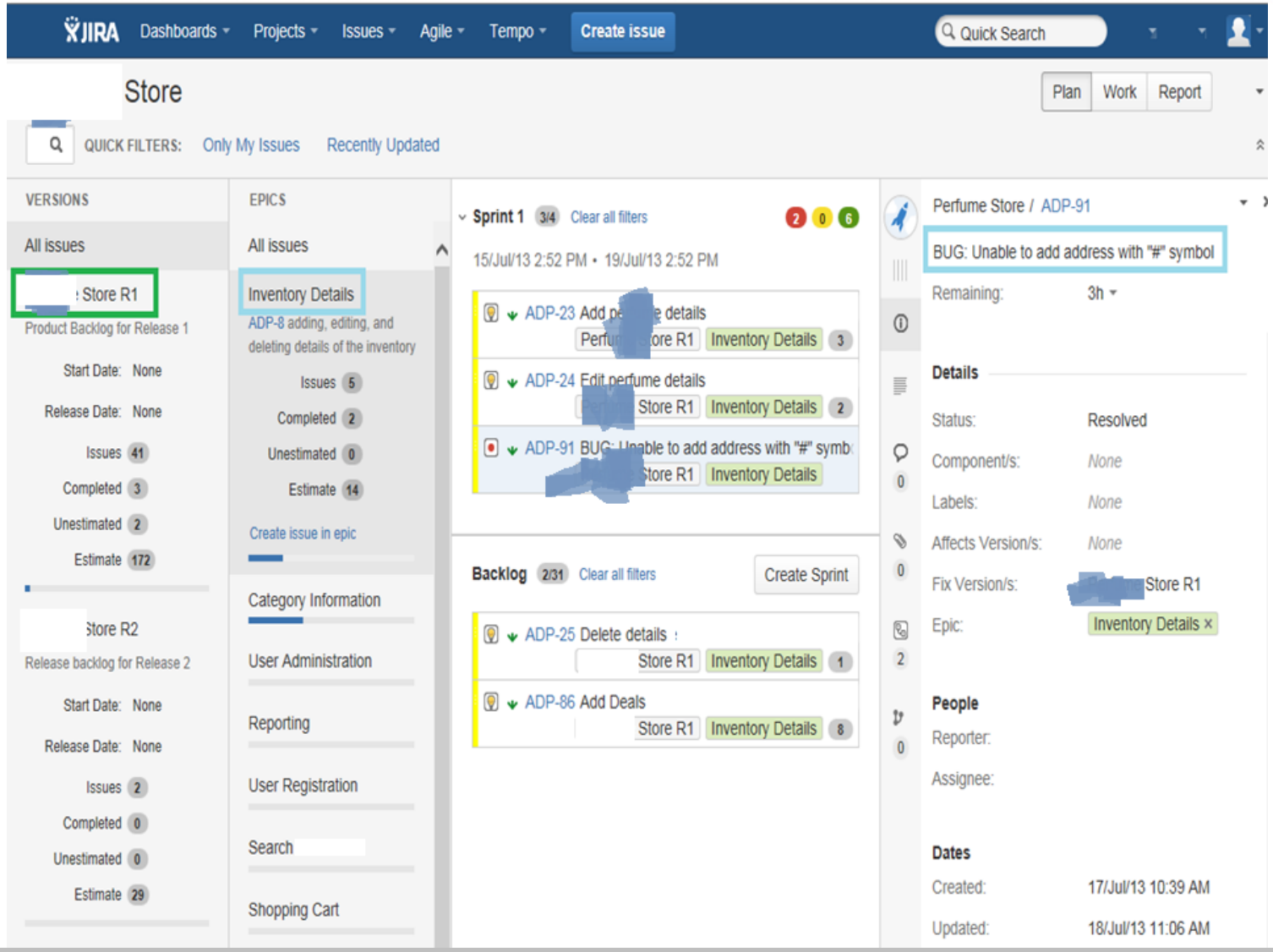

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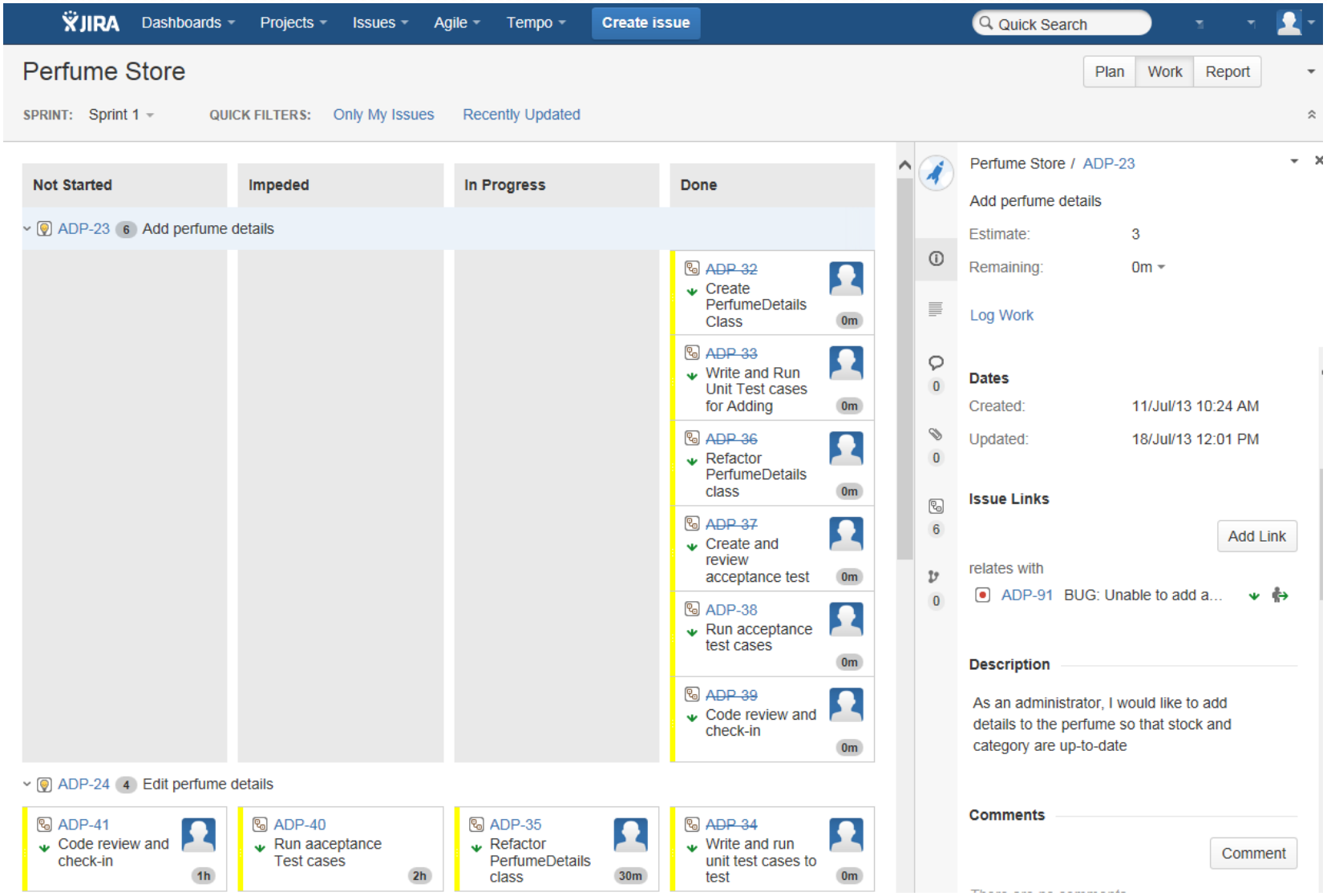
Work Mode - Scrum



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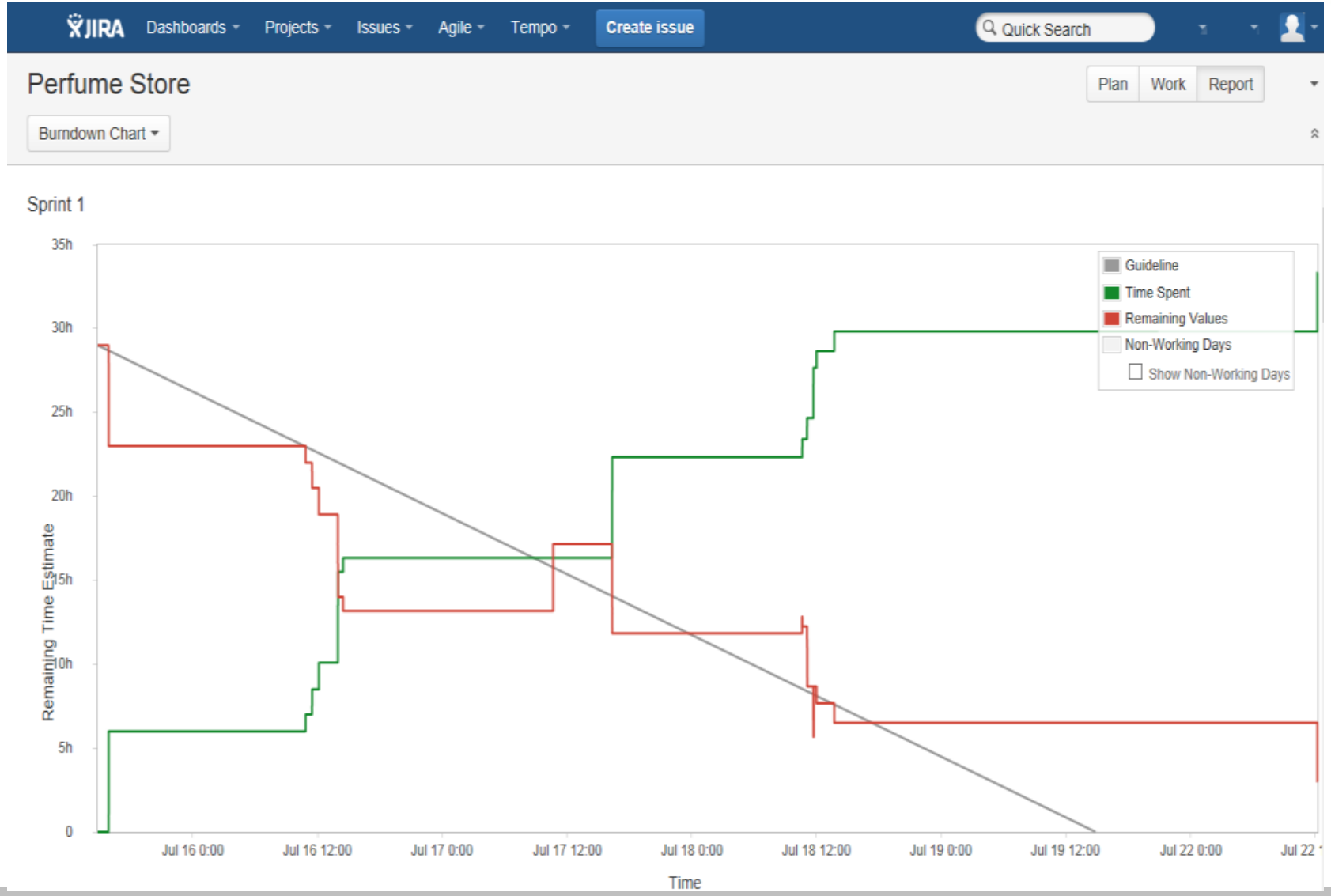
Report Mode - Scrum



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JIRA for Software Testing and to file Bugs

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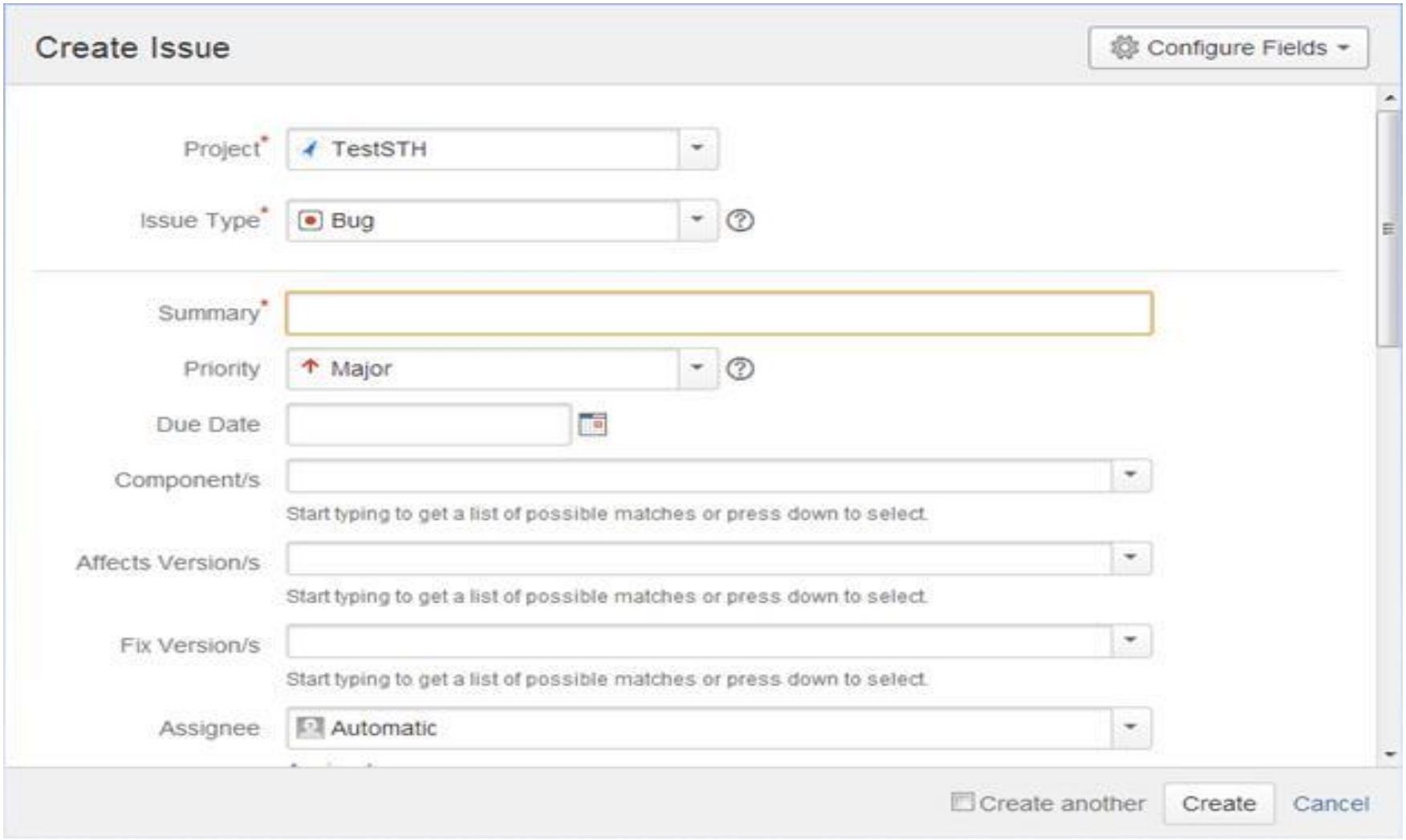
Creating a JIRA issue



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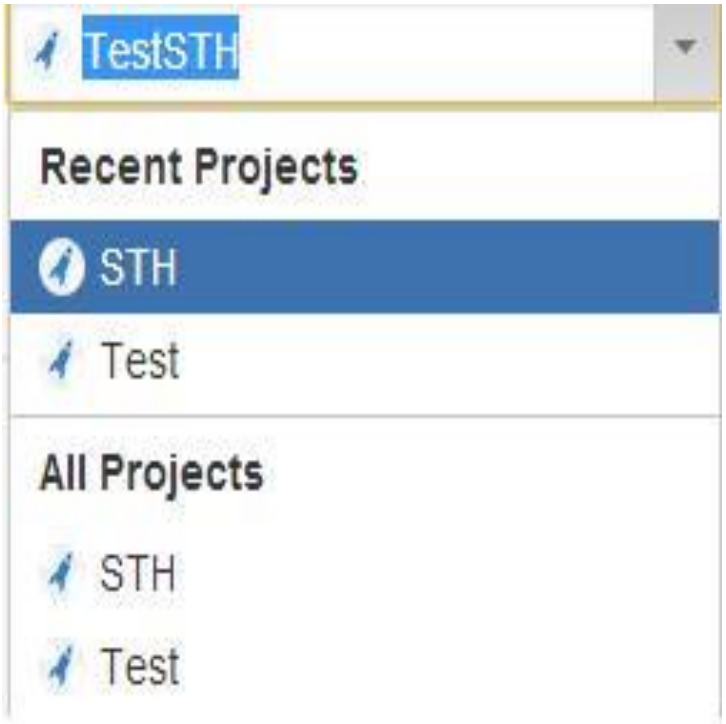
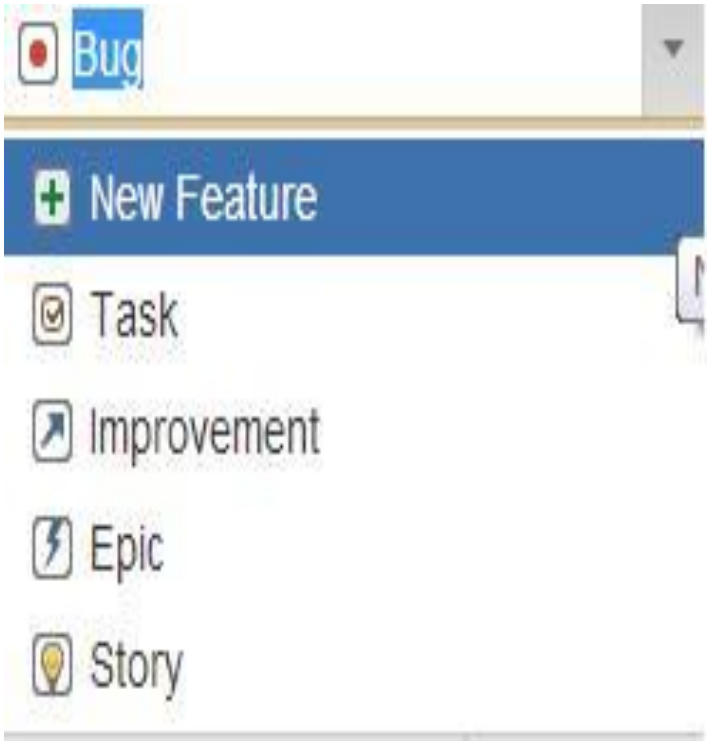
Project Name & Issue Type





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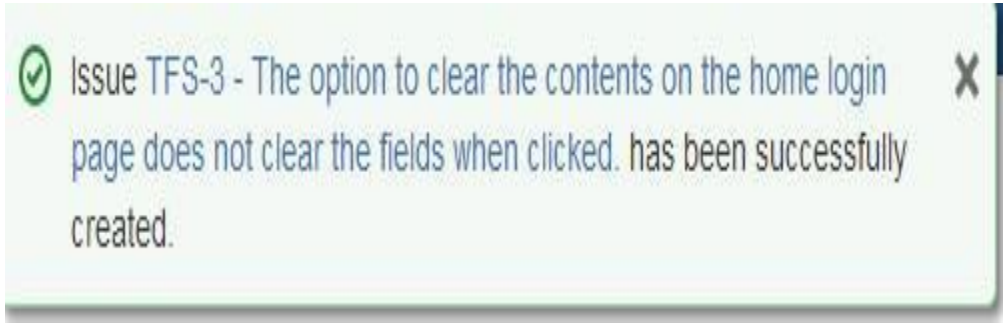
Priority of the Bug & additional attachments



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Comparison of JIRA - Top 5 Reasons GitHub Users GO JIRA

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Agile at Scale	Scrum and Kanban improve project success and deliver value iteratively. JIRA and JIRA Agile scale Agile across your organization. JIRA also integrates with GitHub to link issues to commits.
Industry Leading Workflow Engine	Don't let your issue tracking software dictate your process. With JIRA's workflow engine you can easily build the process that fits your team.
Powerful Searching and Reporting	Use JIRA's Query Language (JQL) with simple autocomplete to build advanced queries. Create a personalized view of JIRA and share dashboards to track project status, create custom reports, and monitor team progress with wallboards.
Deployment Options	Simple Windows and Linux installers are available for an OnPremise solution, or you can get started hassle-free with JIRA OnDemand. Easily switch between OnPremise or OnDemand as your organization evolves.
Integrate with Everything	Get more from JIRA with flexible REST and Java APIs – plus over 600 plugins and add-ons in the Atlassian Marketplace– to connect with the applications and tools you use every day.

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Pricing

- Atlassian provides JIRA for free to open source projects meeting certain criteria, and to organizations that are non-profit, non-government, non-academic, non-commercial, non-political, and secular. For academic and commercial customers, the full source code is available under a developer source license

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Summary

- Tesing management tools
  - Structure
- Jira
  - Agile
  - Scrum
  - sprint/backlog/burn down

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Presented by: Lior Katz
liorkat@tact.co.il
+972542278430

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