

JIRA



JIRA Essentials

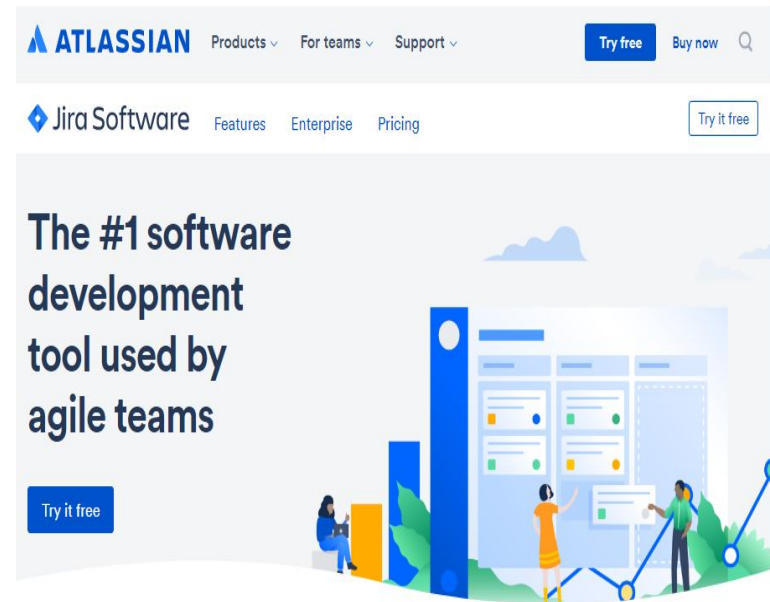
Third Edition

Use the features of JIRA to manage projects and effectively handle bugs and software issues

Patrick Li

[PACKT] enterprise
PUBLISHING professional expertise distilled

www.it-ebooks.info



The best software teams ship early and often.

Jira Software is built for every member of your software team to plan, track, and release great software.

- This is a hands-on seminar
 - Exercises deepen the imparted content
 - Supplementary discussion and demonstrations
- Conventions
 - Commands are shown in `Courier` font
 - File names are shown in *Courier font*
 - Links are shown in `underlined Courier font`
- Time schedule
 - 2 lessons, 90 minutes each

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1

BASICS

1.1

INTRODUCTION

- Originally error management system (bug tracker) in software development
- Today mainly process management
- Features
- Organization of
 - Projects
 - Issues
 - ...
- Authentication and authorization
 - LDAP integration
- Web-based client
- Modularization with add-ons
 - You can also write your own add-ons in your company
- Integration with other systems
 - Confluence as a wiki
 - Source Code Management, Bitbucket

- documentation

- <https://confluence.atlassian.com/display/JIRA/JIRA+Documentation>

- Knowledge base and FAQ

- <https://confluence.atlassian.com/display/JIRAKB/JIRA+Knowledge+Base+Home>

- Forum

- <http://answers.atlassian.com/>

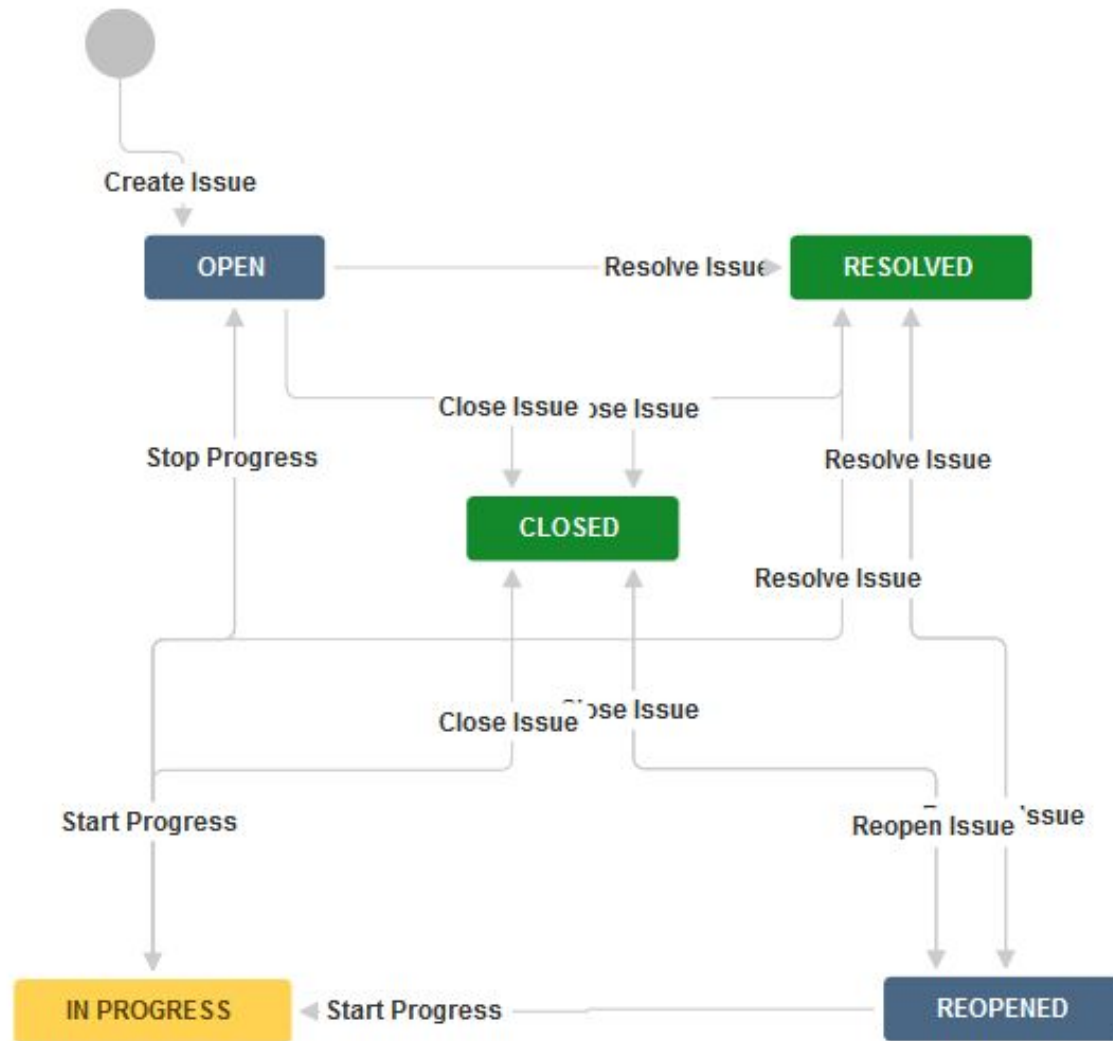
- Blogs / News

- <http://blogs.atlassian.com/news/jira/>
- <https://university.atlassian.com/uac/2.0/courses/end-user/jira/v60>
- Atlassian University

1.2

WORKING WITH JIRA

- Software development
 - Development of new features
 - Change requests
 - Maintenance and troubleshooting
 - Testing
- Managers
 - Project management
 - Requirements
 - Risk
- Technical teams
 - Product development
 - Incidents / errors



2

CONCEPTS

2.1

ISSUES

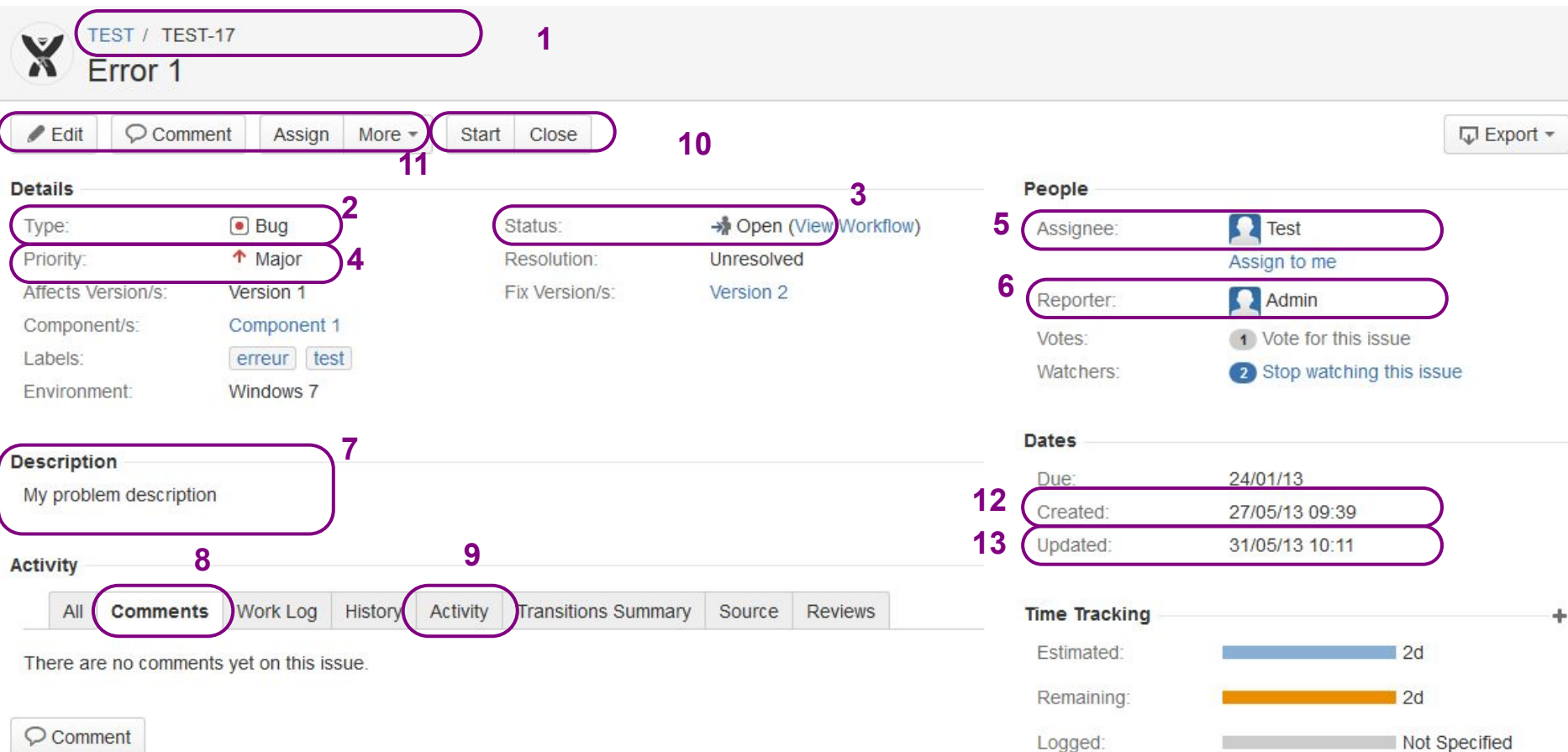
- An issue contains information that is necessary to map a process step
 - Technically speaking, a issue is a record in the JIRA internal database
- issues consist of
 - Any content as free text
 - Meta information that categorizes the issue
 - Also called "attributes" or "fields" of a issue
- Hints:
 - The meta-information gives structure to the issues
 - and are therefore more important than free text!
 - Searching and filtering issues are related to the fields
 - A free text search is possible, but in practice it often delivers unspecific hit sets
 - Workflows change the status of a issue, not necessarily the free text

- Key
 - Unique ID of the issue
- Type
 - Characterization / type of issues
- status
 - Status of the issue within the workflow
- Priority
 - issue priority
- Summary
 - Brief description

- Change history
 - History of changes
- Created date
 - Creation date
- Updated date
 - Date of the last change

- assignee
 - The user assigned to the issue
- reporter
 - The user who created the issue
- Comments
 - Issue comments
 - Can be added by anyone

- Actions
 - State Transitions defined by a workflow
- Operations
 - Available operations



1 TEST / TEST-17
Error 1

10 Edit Comment Assign More Start Close Export

11

Details

2 Type: Bug

4 Priority: Major

Affects Version/s: Version 1

Component/s: Component 1

Labels: erreur test

Environment: Windows 7

3 Status: Open (View Workflow)

Resolution: Unresolved

Fix Version/s: Version 2

5 People

Assignee: Test
Assign to me

6 Reporter: Admin

Votes: 1 Vote for this issue

Watchers: 2 Stop watching this issue

7 Description

My problem description

8 Activity

9 All Comments Work Log History Activity Transitions Summary Source Reviews

There are no comments yet on this issue.

Comment

12 Dates

Due: 24/01/13

13 Created: 27/05/13 09:39

Updated: 31/05/13 10:11

Time Tracking

Estimated: 2d

Remaining: 2d

Logged: Not Specified

2.2

PROJECTS

What are Jira projects?

- A Jira project is a container of issues
- Examples:
 - a business process
 - a marketing team
 - a product
 - a software application
 - a project of the company
 - a service desk
 - Or any system whose status is to be monitored

- Project name
- Unique key that is used for identification as a prefix for issues
- Project manager
- Users who are assigned to project roles

- The project administrator has access to an information page to manage project configuration
 - Menu "Project Settings"
- included informations are:
 - Issue types
 - Permissions
 - Notifications
 - Workflow
 - User administration
 - ...

2.3

ROLES AND PERMISSIONS

- Administrator
 - Manages the Jira server
- Jira administrator
 - Full access to the Jira configuration
 - Extensions and adjustments
- Project administrator
 - Management of the users assigned to the project
 - Can be entrusted with further issues by the Jira administrator
- Users with different rights, for example to manage issues
 - "Power User"
 - "User"
 - ...

- Create projects
 - and thus defines the project manager
- Is the direct contact person when designing a new project
 - Required issue types
 - Customized workflows
 - Installation of add-ons that are required by projects
 - An add-on extends the Jira core component with additional functions
 - Company-specific add-ons can also be created

- Users, groups and roles
- Global Permissions
- Project Permissions
- issues Permissions
- Limitation: Field Security
- Visibility of comments

3

WORKING WITH JIRA

3.1

ISSUES

JIRA Dashboards ▾ Projects ▾ Issues ▾ Agile **Create**

Create Issue

Project* DEMO ▾

Issue Type* Bug ▾ ?

Summary*

Priority Major ▾ ?

Component/s None

Affects Version/s None

Assignee Automatic ▾
[Assign to me](#)

Description

☐ Create another **Create** **Cancel**


Configure Fields ▾


Show Fields: All Custom Where is my field?


<input checked="" type="checkbox"/> Affects Version/s	<input type="checkbox"/> Fix Version/s
<input checked="" type="checkbox"/> Assignee	<input type="checkbox"/> Labels
<input type="checkbox"/> Attachment	<input checked="" type="checkbox"/> Priority
<input checked="" type="checkbox"/> Component/s	<input type="checkbox"/> Reporter
<input checked="" type="checkbox"/> Description	<input type="checkbox"/> Resolution time
<input type="checkbox"/> Due Date	<input type="checkbox"/> Time Tracking
<input type="checkbox"/> Environment	<input type="checkbox"/> VertygoSLA Field
<input type="checkbox"/> Epic Link	

- Use of emails
- From a web application
 - JIRA issue Collector
 - A fragment that can be included in any web page
- From other applications
 - JIRA (REST) API

View issues

 Training / TRAIN-11
Test 24

 Edit

 Comment

Assign



More ▾

Start Progress


Resolve Issue


Close Issue

Admin ▾

  Export ▾

Details

Type:  Improvement

Priority:  Major

Affects Version/s: 1.0

Component/s: [Component 2](#)


Labels: None


Status: **OPEN** [\(View Workflow\)](#)


Resolution: Unresolved


Fix Version/s: 2.0

People

Assignee:  Test
[Assign to me](#)

Reporter:  Fairouz Carpentier


Votes:  0


Watchers:  1 [Stop watching this issue](#)


Dates


Created: 1 hour ago

Updated: Just now

Time Tracking 

Estimated:  2d

Remaining:  2d

Logged:  Not Specified

Description

[Click to add description](#)

Activity

All

Comments

Work Log


History

Activity

Source


Reviews

There are no comments yet on this issue.

 Comment

Change of fields

No change of workflow status!

 Training / TRAIN-11
Test 24

Edit

Comment

Assign

More ▾


Start Progress

Resolve Issue

Close Issue

Admin ▾

Details

Type:	 Improvement	Status:	OPEN (View Workflow)
Priority:	↑ Major	Resolution:	Unresolved
Affects Version/s:	1.0	Fix Version/s:	2.0
Component/s:	Component 2		
Labels:	None		

delete

Often an administrative process

Deletion is permanent

- creation
 - Sub-issue issues can be created from a normal issue
 - Only one hierarchy level is possible
- Conversion
 - Sub-issue to issue
 - issue to sub-issue

every JIRA project can contain components

- They group issues within a project into smaller parts

- each issue can be assigned to one, several or none of the components

a component can be functional:


- HR, billing, claims


Or also technically:


- Web interface, reports, library

- Two actions:
 - file
 - Maximum size in the standard configuration 10 Mb
 - Screenshot
- configuration
 - name
 - comments
 - visibility

- Adding a comment:
 - Writing the text
 - HTML can be used
 - Setting the visibility
- Operations:
 - Change
 - Delete
 - Permalinks for email / intranet
 - Confluence Wiki markup

 Training / TRAIN-11
Test 24

 Edit

 Comment

Assign



More ▾

Start Progress


Resolve Issue

Close Issue

Admin ▾


  Export ▾

▼ Details


Type:	 Improvement	Status:	OPEN (View Workflow)
Priority:	↑ Major	Resolution:	Unresolved
Affects Version/s:	1.0	Fix Version/s:	2.0
Component/s:	Component 2		
Labels:	None		

People

Assignee:

 Test
[Assign to me](#)


Reporter:

 Fairouz Carpentier

Votes:

0

Watchers:


 1 Stop watching this issue

- Keeping a record of the time spent on a issue
 - Original estimate
 - Remaining estimate
 - Spent time
-

Example: time tracking

Log Work

Time Spent* (eg. 3w 4d 12h) ?
An estimate of how much time you have spent working.

Date Started* 

Remaining Estimate ☒ Adjust automatically
the estimate will be reduced by the amount of work done, but never below 0.

☐ Use existing estimate of 2 days

☐ Set to (eg. 3w 4d 12h)

☐ Reduce by (eg. 3w 4d 12h)

Work Description

Time Tracking

Estimated: 2d

Remaining: 2d

Logged: Not Specified

- issues can have relationships with one another
 - Links to another issue
 - Relationships to any URL are also possible
 - Especially to Confluence

Link

JIRA Issue

Web Link

Select a JIRA issue to link this issue to

This issue

Issue

Comment

uplicates

History Search (Showing 11 of 11 matching issues)

TRAIN-1 - Test 1

TRAIN-12 - Test 25

TRAIN-10 - Test 21

TRAIN-9 - Test 20

TRAIN-8 - Test 13

TRAIN-7 - Test 12

TRAIN-6 - Test 11

TRAIN-5 - Test 10

TRAIN-4 - Test 4

TRAIN-3 - Test 3

TRAIN-2 - Test 2

Link

Cancel

Link to a web page

Link

[JIRA Issue](#)
[Confluence Page](#)
Web Link

Enter a URL to link this issue to

URL *

[http://www.valiantys.com](#)

Enter the URL of the page to link

Link Text *

Valiantys

Comment

Link

- issues can receive votes
 - for example, to be able to prioritize the implementation of a issue
- Operations
 - Up-vote
 - Analysis of the voting behavior of the users



Vote history



Voters

There are no voters for this issue

Voted Issues

T	Key	P	Summary
	TEST-17		Error 1

1-1 of 1

- Observers receive a notification every time the issue changes
- The person responsible for the issue manages the list of watchers

- Sending a issue to a JIRA user

Change History Tab


Contains any changes made to the issue

3.2






VERSIONS



- A version can have 3 statuses
 - Unreleased
 - Released
 - Archived

Version management

 **Versions**

For software projects, JIRA allows you to track different versions, e.g. 1.0, 2.0. Issues can be assigned to versions.

Name	Description	Start date	Release date
 <input type="text"/>	<input type="text"/>	<input type="text"/>	 <input type="text"/>
 Version 3			
 Version 2			01/02/13
 Version 1			18

- Release
- Build and Release
- Archive
- Delete

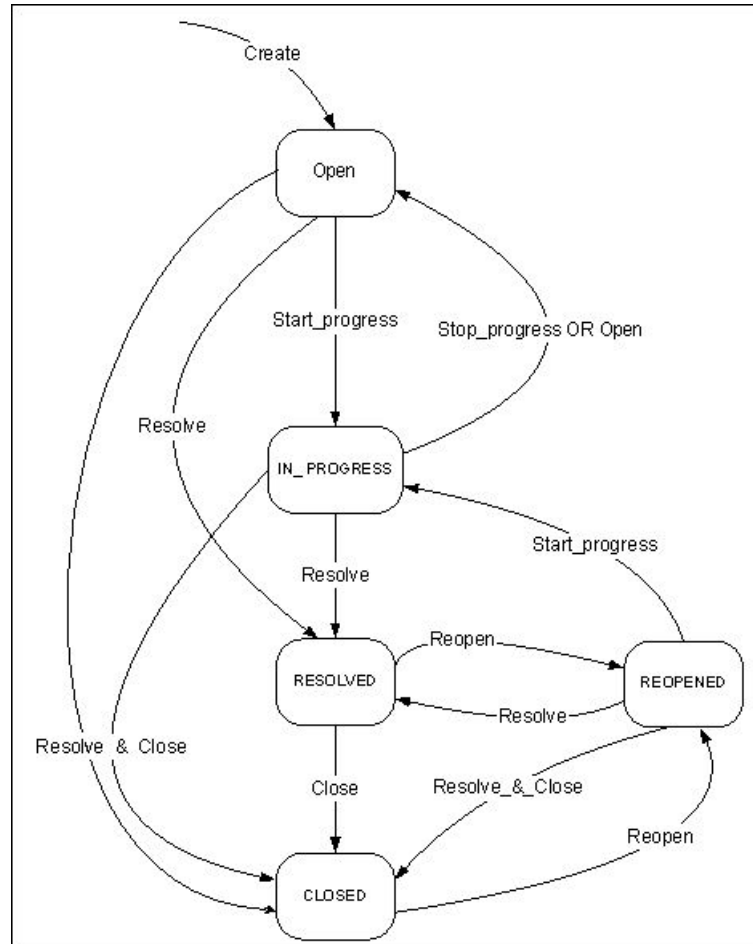
- Versions are used for:
 - Track releases
 - Builds
 - Roadmaps
 - Deployments

3.3

WORKFLOW

- a workflow represents the lifecycle of a issue through steps and transitions
- It represents the process that the issue will go through

Example: workflow



4

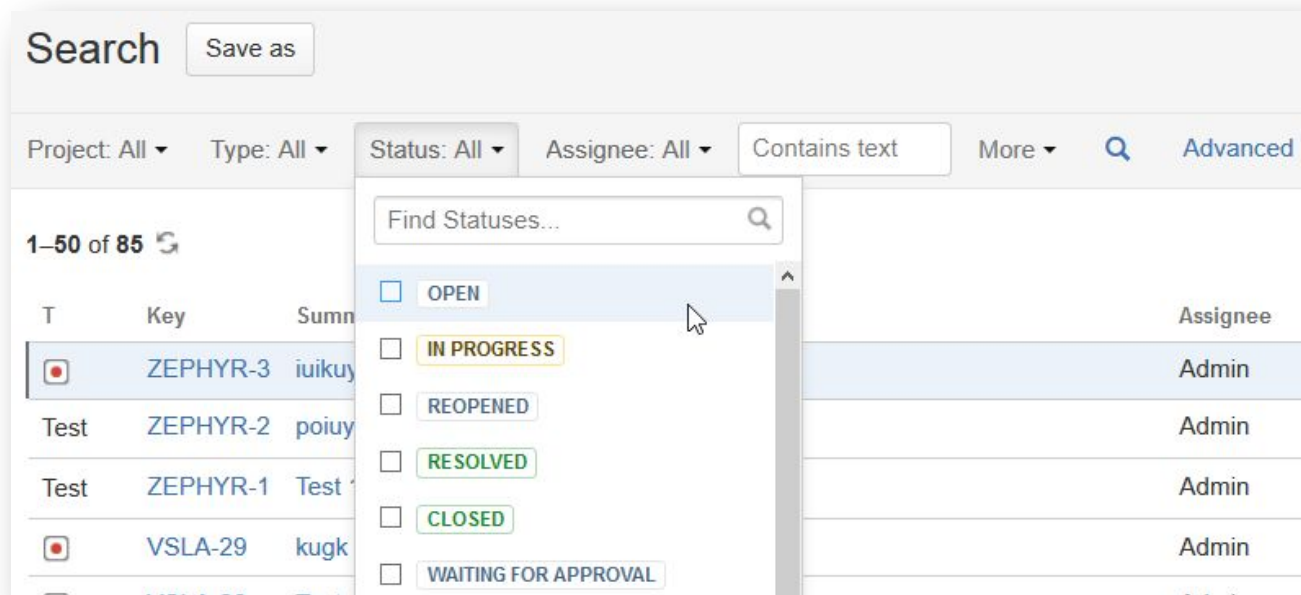
SEARCH AND FILTER

4.1

SEARCH

- Search for key, e.g. 'ABC-123'
- Search within text fields:
 - Summary
 - Description
 - Comments
- Search by keywords:
 - 'My': all issues that are assigned to me
 - 'TST': all issues of the 'TST' project
 - 'Bug': all issues of the 'bug' type

Search of issues with range of search criteria
Several fields are linked with "AND"



- Logical keywords:
 - AND, ORr, IN, NOT, EMPTY, WAS, CHANGED ...
- Some fields are only available in the Advanced Search:
 - Category, sprint, linked issues, sub-issues ...
- Date functions:
 - endOfDay (), endOfMonth (), endOfWeek (), endOfYear ()
- Functions for roles, users and groups:
 - membersOf (), projectsLeadByUser (), currentUser ()

✓ `project = TEST AND issuetype = Bug AND created > startOfDay()`



- Search for specific sequences with ""
- Wildcards:
 - '?': Single character
 - '*': Any sequence of characters
- Logical operators
 - AND, OR
- Required terms
 - '+' or excluded '-'
- Search terms weight '^'
-

4.2

FILTER

- A filter is a saved search
- They are used:
 - In the issue navigator
 - Some dashboard gadgets
 - Some project reports
- Subscriptions can be defined for filter results
- Filters can be shared
- Filters can be saved as favorites
-
-

- My open issues
- Reported by me
- Recently viewed
- All issues

Creation of filters

Search

TEST ▾ Type: All ▾ Status: All ▾ Assignee: All ▾

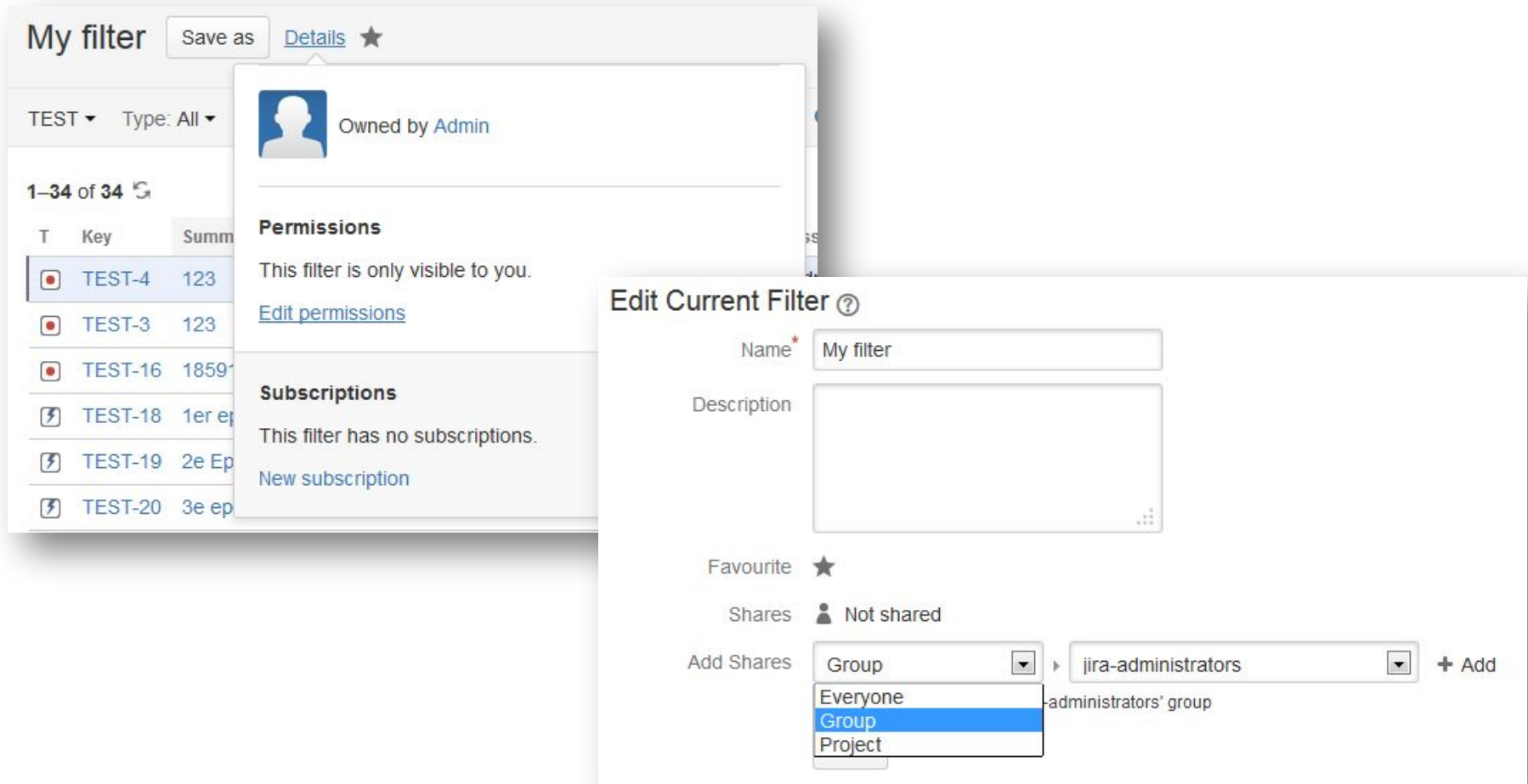
Save Filter

Filter Name*

Enter a name for this Filter

[Cancel](#)

Share filter n



The screenshot shows the JIRA 'My filter' interface with a 'Details' dropdown menu open. The dropdown menu contains sections for 'Permissions' and 'Subscriptions'. The 'Permissions' section states 'This filter is only visible to you.' and includes a link to 'Edit permissions'. The 'Subscriptions' section states 'This filter has no subscriptions.' and includes a link to 'New subscription'. The 'Edit Current Filter' dialog is also open, showing the filter's name 'My filter', a description field, and sharing options. The 'Favourite' section has a star icon. The 'Shares' section shows 'Not shared'. The 'Add Shares' section has a dropdown menu with 'Group' selected, and a text input field containing 'jira-administrators'. A '+ Add' button is next to the input field. The dropdown menu also shows 'Everyone' and 'Project' options.

My filter Save as Details ★

TEST ▾ Type: All ▾

1-34 of 34

T	Key	Summ
<input checked="" type="checkbox"/>	TEST-4	123
<input checked="" type="checkbox"/>	TEST-3	123
<input checked="" type="checkbox"/>	TEST-16	1859
<input checked="" type="checkbox"/>	TEST-18	1er ep
<input checked="" type="checkbox"/>	TEST-19	2e Ep
<input checked="" type="checkbox"/>	TEST-20	3e ep

Permissions

This filter is only visible to you.

[Edit permissions](#)

Subscriptions

This filter has no subscriptions.

[New subscription](#)

Edit Current Filter ?

Name* My filter

Description

Favourite ★

Shares Not shared

Add Shares Group ▾ jira-administrators ▾ + Add

Everyone
Group
Project

Manage Filters

Favourite

My

Popular

Search

Favourite Filters

Filters are issue searches that have been saved for re-use. This page shows you all your favourite filters.

Name	Owner	Shared With	Subscriptions
★ DEMO All issues	Admin (admin)	• Private filter	None - Subscribe
★ Mon premier filtre	Admin (admin)	• Shared with all users	None - Subscribe

Filter Subscription

Recipients

Personal Subscription

Schedule

☒ Daily

☐ Days per Week

☐ Days per Month

☐ Advanced

Interval

once per day

at

1

00

am

The current server time is 04/07/13 18:01 - Central European Summer Time







☐ Email this filter, even if there are no issues found

Subscribe

Cancel



Share of search results

User name or email

 Giles Gaskell 
 Bryan Rollins 
 admin@example-company.com 

Note

Thought you might be interested in this set of issues...

Adjusting the columns of a filter

1-16 of 16

T	Key	Summary	Assignee	Status
	TEST-16	185916	Admin	
	TEST-15	aaa	Admin	
	TEST-14	frzefz	Admin	
	TEST-13	Test	Admin	
	TEST-12	AAAA	Admin	
	TEST-11	Ma première demande	Admin	
	TEST-10	Story A	Admin	
	TEST-9	Deuxième epic	Admin	
	TEST-8	Story 2	Admin	
	TEST-7	Story 1	Admin	
	TEST-6	premier epic	Admin	
	TEST-5	blablabla	Admin	
	TEST-4	123	Admin	
	TEST-3	123	Admin	

Columns

My Defaults Filter System

Search

- ☐ Description
- ☐ Due Date
- ☐ Environment
- ☐ Epic/Theme
- ☐ Field configuration scheme
- ☒ Fix Version/s
- ☐ Images
- ☐ Issue security scheme
- ☐ Issue type scheme

Done Cancel

4.3

ADVANCED SEARCH

- JQL = JIRA Query Language
 - SQL ist similar, however...
 - Complete reference:
 - <https://confluence.atlassian.com/display/JIRA/Advanced+Searchin+g>

- Fields
 - properties
- Operators
 - Comparison, logic, ...
- Values
 - values
- keywords
 - AND, OR, NOT, EMPTY, NULL, ORDER BY.

- What tasks does the user "testuser" have in the test project?
 - reporter = testuser AND project = 'Test Project'
- Which tasks are blocking or critical in projects A, B, and C?
 - priority IN (Blocker, Critical) and project IN (ProjA, ProjB, ProjC)
- Which tasks are unassigned and not updated since yesterday?
 - assignee is EMPTY and updated <-1d

- Which tasks are assigned to a member of the ICS Division group?
 - assignee IN membersof ('ICS Division')
- Which tasks of project P are resolved or closed?
 - Project = P and status IN (resolved, closed) and fixversion = earliestUnreleasedVersion ()

- elements
 - AFTER "date"
 - BEFORE "date"
 - BY "username"
 - DURING ("date1", "date2")
 - ON "date"
 - FROM "oldvalue"
 - TO "newvalue"
- Examples
 - Which tasks
 - status CHANGED FROM "In Progress" TO "Resolved" BY currentUser ()
 - Which tasks were resolved this year?
 - Resolution CHANGED TO "Fixed" BY currentUser () DURING (startOfYear (), endOfYear ())



- Open issues sorted by priority and assignee:
 - status = open ORDER BY priority, assignee
- Issues with blocker or critical priority that were created in the last two weeks, sorted from newest to oldest:
 - priority IN (blocker, critical) and created > -2w ORDER BY created DESC

4.4

REPORTING

- Standard reporting
 - A set of predefined reports available in Jira
- JIRA Advanced Report
 - Any reports
 - BIRT designer
 - Will not be dealt with in the course


Example: Time Tracking


 **Training**
Key: TRAIN · Lead:  Admin · Category: Test


Overview Administration


[Summary](#)
[Issues](#)
[Road Map](#)
[Change Log](#)
Reports
[Versions](#)
[Components](#)


Reports


 **Average Age Report**
A report showing the average age of unresolved issues for a project or filter.


 **Created vs. Resolved Issues Report**
A report showing issues created vs. issues resolved.

 **Pie Chart Report**
A report showing the issues for a project or filter as a pie chart.

 **Recently Created Issues Report**
A report showing the number of issues recently created.

 **Resolution Time Report**
A report showing the length of time taken to resolve issues for a project or filter.

 **Single Level Group By Report**
This report allows you to display issues grouped by a certain field

 **Time Since Issues Report**
A report showing time since a chosen field for each issue for a project or saved filter.

Example: Time Tracking

Report: Time Tracking Report

Description:

This report shows the time tracking details for a specific project.

Fix Version

Select the version on which to make the Time Tracking report

Sorting

Select order in which the issues will be displayed

Issues

Select which issues to include in the report

Sub-task Inclusion




Select which sub-tasks are included in the report

Time Tracking Report for TEST (Version 2)

Only including sub-tasks with the selected version

Progress: 16%  4h completed from current total estimate of 3d

Accuracy: 25%  Issues in this version are ahead of the original estimate of 4d by 1 jour.

Key		Summary		Original Estimate		Est. Time Remaining		Time Spent		Accuracy	
					Σ		Σ		Σ		Σ
	TEST-17		Error 1	2d	2d	2d	2d	-	-	on track	on track
	TEST-1		Error 1	2d	2d	4h	4h	4h	4h	1d	1d
Total				4d		2d 4h		4h		1d	

4.5

EXPORT

- Tasks can be processed further in various data formats
 - Plain text
 - Word document
 - PDF
 - Excel
 - JSON
 - A data exchange format to external systems

4.6

SHORTCUTS

- selection
 - 'C' creates a task
 - 'E' edit a task
 - 'M' to comment
 - 'J' and 'k' navigate through search results
- View all shortcuts with '?'

4.7

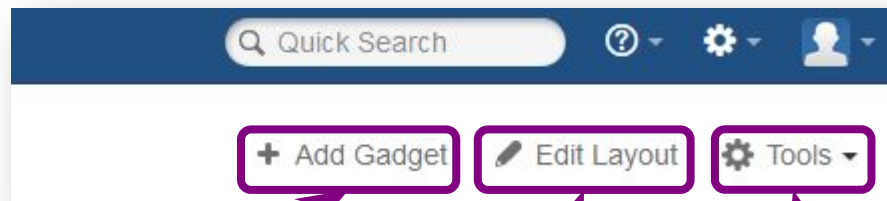
PROFILE

- Number of displayed tasks per page
- Format of notifications
- language
- Email notifications
- Default Navigator Columns
- Time zone
- Automatic watching

4.8

DASHBOARD

- Dashboard
- Boards
 - Part of the Agile add-on



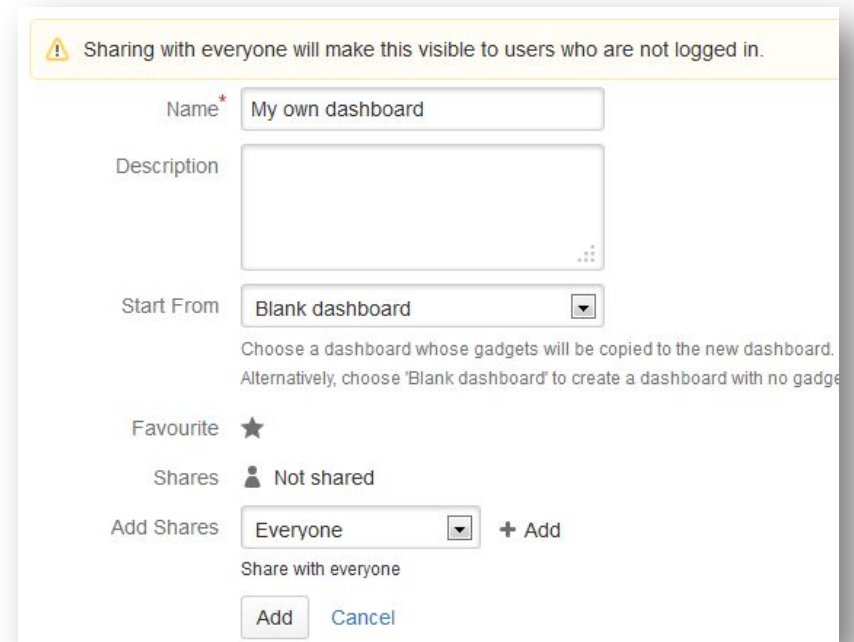
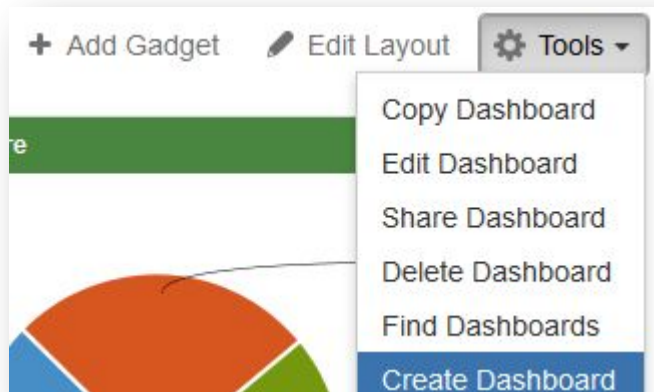
Add a gadget to your dashboard

Change visual display

Manage dashboards

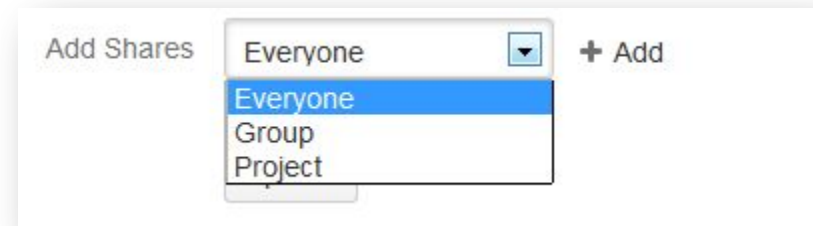
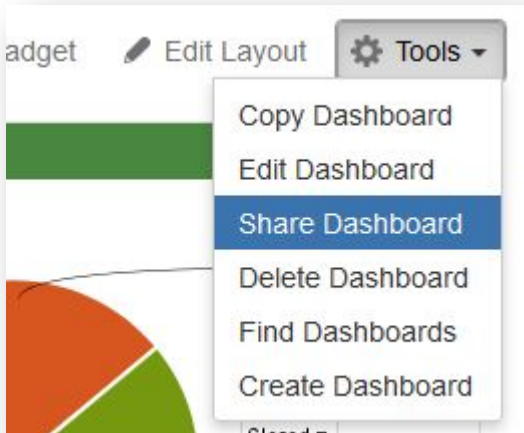
Create dashboarda

- new
- clone

A screenshot of the 'Create Dashboard' dialog box in JIRA. At the top, a yellow warning banner states: 'Sharing with everyone will make this visible to users who are not logged in.' The form contains the following fields and options:

- Name***: A text input field containing 'My own dashboard'.
- Description**: A large text area for a description.
- Start From**: A dropdown menu currently set to 'Blank dashboard'. Below it, a note reads: 'Choose a dashboard whose gadgets will be copied to the new dashboard. Alternatively, choose 'Blank dashboard' to create a dashboard with no gadgets.'
- Favourite**: A star icon.
- Shares**: A person icon followed by the text 'Not shared'.
- Add Shares**: A dropdown menu set to 'Everyone' with a '+ Add' button next to it.
- Share with everyone**: A checkbox that is currently checked.
- Buttons**: 'Add' and 'Cancel' buttons at the bottom.

Share dashboards



A dashboard consists of 'gadgets'



Add a gadgets

Gadget Directory

Get more gadgets · Create your own gadget


All (37)

Charts (12)

JIRA (34)

Other (3)

Wallboard (10)




Activity Stream
By Atlassian

Lists recent activity in a single project, or in all projects.

<http://localhost:8080/jira/rest/gadgets/1.0/g/com.atlassian.streams.streams-jira...>

Add it Now

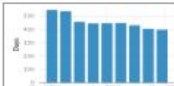


Assigned to Me
By Atlassian

Displays all unresolved issues assigned to me

<http://localhost:8080/jira/rest/gadgets/1.0/g/com.atlassian.jira.gadgets:assigne...>

Add it Now



Average Age Chart
By Atlassian

Displays the average number of days issues have been unresolved.

<http://localhost:8080/jira/rest/gadgets/1.0/g/com.atlassian.jira.gadgets:average-...>

Add it Now

Bugzilla Issue ID

Bugzilla Issue ID Search
By Atlassian

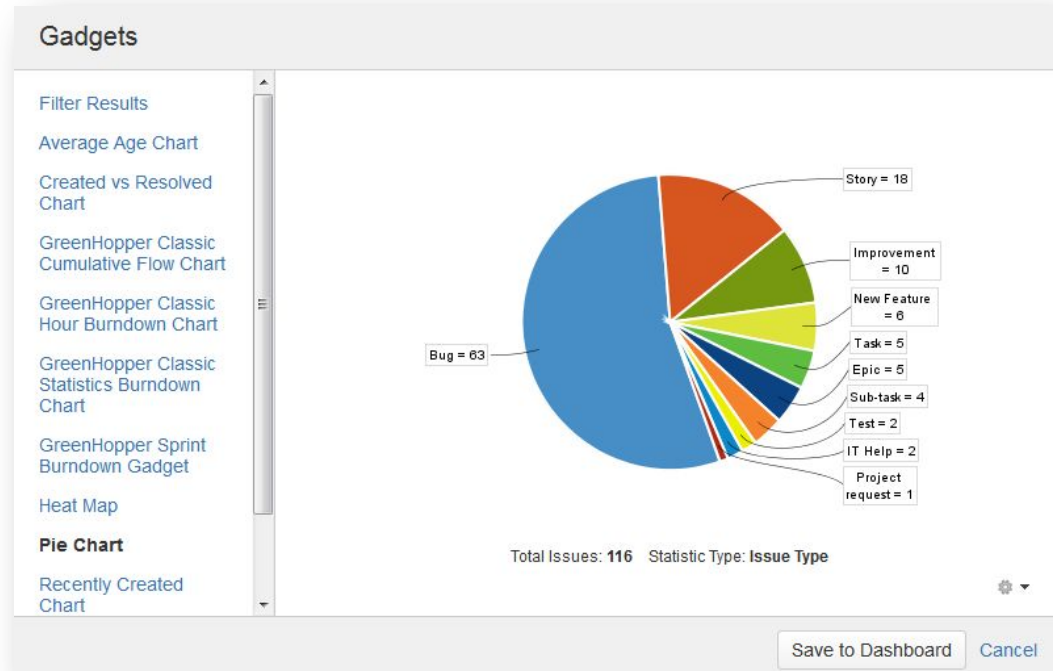
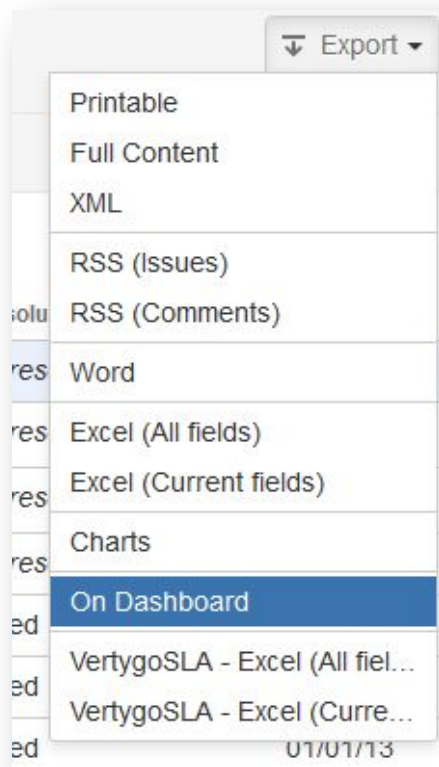
Add Gadget to Directory

Gadget Subscriptions

Close

Hinzufügen eines Gadgets

- Direkt aus dem Aufgabe Navigator

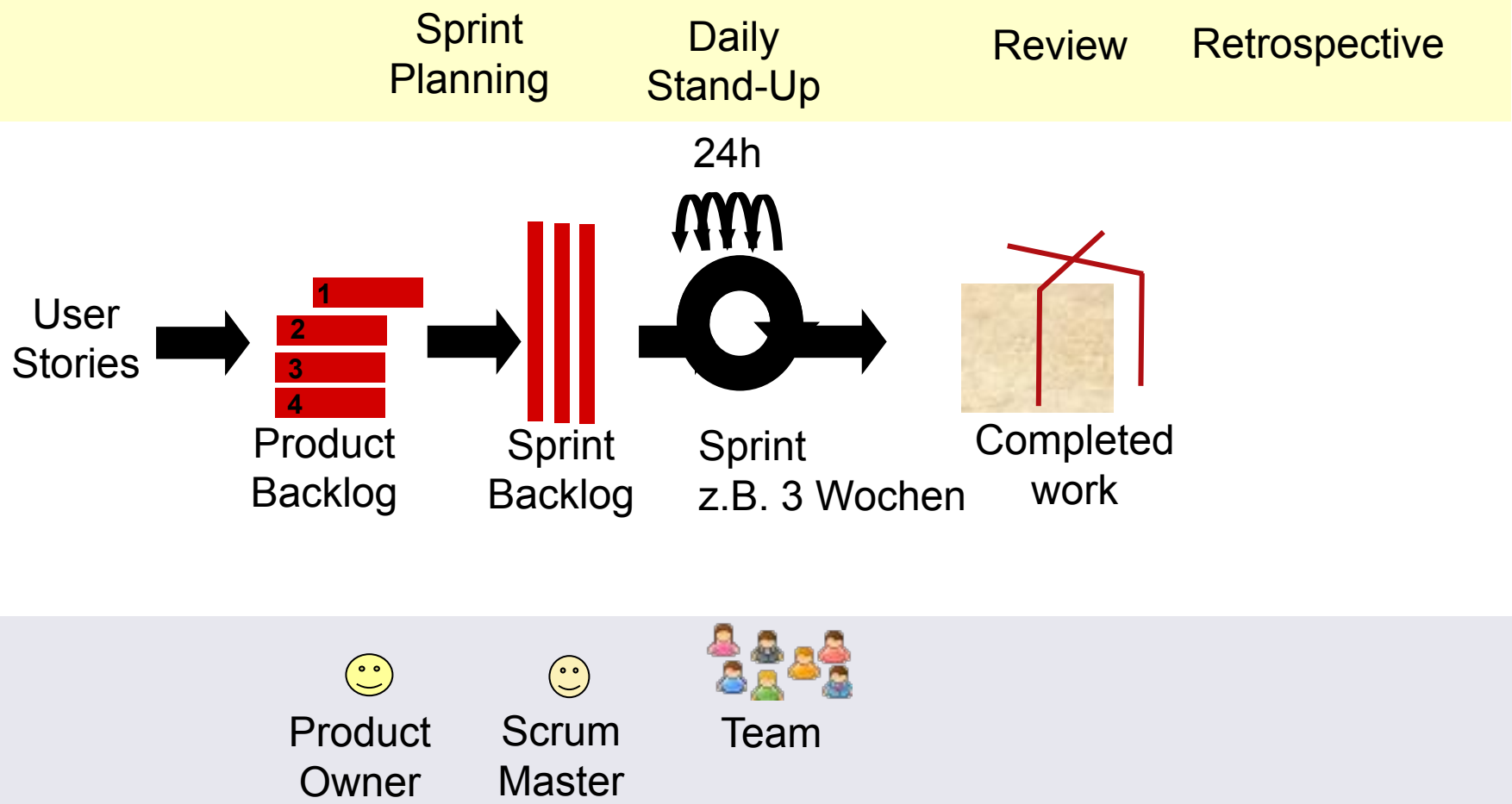


5

AGILE

5.1

SCRUM



- Planning board, create user story
- issueboard, my processes, move stories, mark obstacles, views
- Product, sprint and impediment backlog
- Sprint burndown chart
- Agile gadgets & wallboards

5.2

KANBAN

- Visualization of the status transitions through vertical columns on a Kanban board
- Each column is assigned a minimum and, in particular, a maximum capacity
- This makes bottlenecks visible
- Quick filters filter relevant processes
- Swimlanes define horizontal groups
- Example: prioritization of processes
- Tasks may not leave their respective swim lane