A pragmatic introduction to Agile methodology using Jira and Confluence

Fabio Severino

Agile principles

Agile project management is an iterative development methodology that values human communication and feedback, adapting to change, and producing working results.

Key values of Agile

- Iterative development
- Adaptive to changing requirements
- Frequent delivery
- Collaboration between cross-functional teams

Agile principles (2)

The main goal is to keep requirements and documentation lightweight and flexible.

This can only be achieved by ensuring close collaboration between team members, especially between business people and the developers.

Agile principles (3)

There are many methodologies that are considered agile but the two main ones (supported by Jira) are:

- SCRUM
- Kanban

SCRUM

Is the most highly recognized agile methodology

It works by breaking project down into smaller bits of user functionality represented by user stories.

User stories

Def. A user story is a short simple description of a product feature told from the perspective of a person that wants that feature.

They are used to define what is called the product **backlog** in an agile development workflow.

A backlog is a list of tasks required to support a larger strategic plan. In a product development context, it contains a **prioritized** list of items that the team has agreed to work sometime in the future.

User stories (2)

A typical grammar for user stories is

```
As a < type of user >, I want < some goal > so that < some reason >.
```

Ex. As a instagram user, I want to add photos to my profile so that I can have more likes.

User stories (3)

Detail can be added to user stories in two ways:

- By splitting a user story (epic) into multiple, smaller user stories.
- By adding “conditions of satisfaction.”

Def. An **epic** is a very big user story that contains many other smaller user stories.

Def. The conditions of satisfaction is simply a high-level acceptance test that will be true after the agile user story is complete.

Condition of satisfaction

In other words, conditions of satisfaction are specific to a given product backlog item and define what must be true for that product backlog item to be considered done.

For example, a user story such as, "As a user, I am required to login with credentials before using the site," might include these conditions of satisfaction:

- user is logged in only when proper credentials are provided
- a "remember me" option is available
- user is locked out after three failed attempts

Condition of satisfaction

In other words, conditions of satisfaction are specific to a given product backlog item and define what must be true for that product backlog item to be considered done.

For example, a user story such as, "As a user, I am required to login with credentials before using the site," might include these conditions of satisfaction:

- user is logged in only when proper credentials are provided
- a "remember me" option is available
- user is locked out after three failed attempts
- user can request a password reminder ← HIDDEN user story!

User stories

Usually, at first user stories are written using **post-it** cards where the user story is written on the front side and the condition of satisfaction on the back side.

After a brief discussion with the team:

- user stories are selected
- duplicates removed
- written form is improved
- they are organized in a agile management tool (like Jira)

SCRUM Roles

- Product owner (product team is better)
  - Define vision of the product
  - What should be built and why
- Development team
  - Builds the product
- Scrum Master
  - Facilitates the scrum process

SCRUM Roles

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I hate this definition

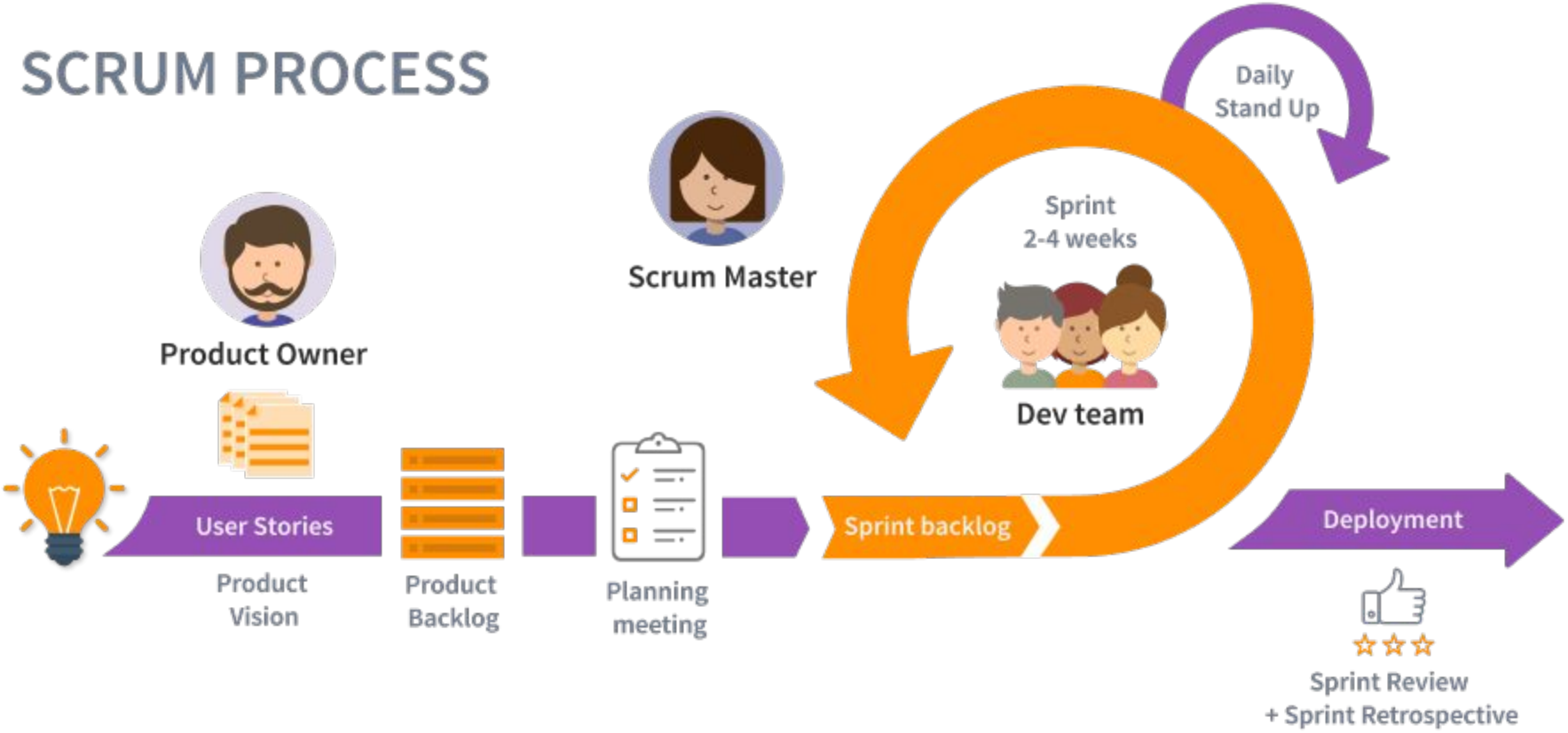
I prefer the term project manager,
It's stupid to have a people
micro-managing the other people work

Although the scrum master ensures that the development team is working to meet the sprint goal, he is not considered their bosses or direct supervisors as the development team is expected to be self-organizing.

SCRUM Events

- Sprint planning (begin)
  - Sprint backlog created from product backlog
  - Dev team provides estimates => Story points or hours
- Standup Meeting (during)
  - Maximum 15 minutes long, the shorter, the better
  - What I did yesterday
  - What I plan to do today
  - Do I have any blockers?
- Sprint review & retrospective (end)
  - Review
    - What was completed / not completed
  - Retrospective
    - What went well
    - What could be improved

SCRUM PROCESS



ScrumDevelop...
Software project

- Backlog
- Active sprints
- Reports
- Releases
- Issues
- Pages NEW
- Components
- Add item
- Settings

SCRUM board

Backlog

Quick filters Assignee

VERSIONS

EPICS

Sample Sprint 2 6 issues 3 5 6 Plan sprint

15/Feb/18 3:41 AM • 01/Mar/18 4:01 AM

As a developer, I can update story and task status with drag and drop (click the triangle at far left of this stor	VERSION 2.0	SCRUM-10	5
As a developer, I can update details on an item using the Detail View >> Click the "SCRUM-13" link at the top	VERSION 2.0	SCRUM-13	
As a user, I can find important items on the board by using the customisable "Quick Filters" above >> Try clicking the "Only		SCRUM-14	3
As a scrum master, I can see the progress of a sprint via the Burndown Chart >> Click "Reports" to view the Burndown Chart		~~SCRUM-15~~	4
As a team, we can finish the sprint by clicking the cog icon next to the sprint name above the "To Do" column then selecting "Cor		~~SCRUM-16~~	2
Instructions for deleting this sample board and project are in the description for this issue >> Click the "SCRUM-17" link and		~~SCRUM-17~~	

Backlog 8 issues Create sprint

As a developer, I'd like to update story status during the sprint >> Click the Active sprints link at the top right of the screen to go t		SCRUM-9	3
As a product owner, I'd like to include bugs, tasks and other issue types in my backlog >> Bugs like this one will als	VERSION 2.0	SCRUM-8	
As an Agile team, I'd like to learn about Scrum >> Click the "SCRUM-1" link at the left of this row to see detail in the	VERSION 2.0	SCRUM-1	2
As a product owner, I'd like to express work in terms of actual user problems, aka User Stories, and place them in th	VERSION 2.0	SCRUM-2	2
As a product owner, I'd like to rank stories in the backlog so I can communicate the proposed implementation order	VERSION 3.0	SCRUM-3	5
As a team, I'd like to estimate the effort of a story in Story Points so we can understand the work remaining >> Try s	VERSION 3.0	SCRUM-4	5
As a team, I'd like to commit to a set of stories to be completed in a sprint (or iteration) >> Click "Create Sprint" then drag the foot		SCRUM-5	1
As a scrum master, I'd like to break stories down into tasks we can track during the sprint >> Try creating a task by clicking the Su		SCRUM-6	1

ASampleScrum...
Software project

- Backlog
- Active sprints
- Reports
- Releases
- Issues and filters
- Pages NEW
- Components
- Add item
- Settings

AS board

Sample Sprint 2

4 days remaining | Complete sprint | •••

Quick filters | Assignee

TO DO

As a developer, I can update details on an item using the Detail View >> Click the "AS-13" link at the top of this card to open the detail view
AS-13

As a user, I can find important items on the board by using the customisable "Quick Filters" above >> Try clicking the "Only My Issues" Quick Filter
3
AS-14

IN PROGRESS

As a developer, I can update story and task status with drag and drop (click the triangle at far left of this story to show sub-tasks)
5
AS-10

Update task status by dragging and dropping from column to column >> Try dragging this task to "Done"
AS-11

When the last task is done, the story can be automatically closed >> Drag this task to "Done" too
AS-12

DONE

Instructions for deleting this sample board and project are in the description for this issue >> Click the "AS-17" link and read the description
~~AS-17~~

As a team, we can finish the sprint by clicking the cog icon next to the sprint name above the "To Do" column then selecting "Complete Sprint" >>
2
~~AS-16~~

As a scrum master, I can see the progress of a sprint via the Burndown Chart >> Click "Reports" to view the Burndown Chart
4
~~AS-15~~

Kanban

Is the a simpler form of agile development

- **Define flow of work**
  - As in how does a particular work item go from start to completion?
  - What are the various steps or stages that it would go through?
- **Visualize the workflow**
  - A piece of work is represented by a Card that is contained in a list of the Kanban board
  - The goal is to move items from left to right
- **Limit on WIP items**
  - the limits generally come from the team's capacity (number and skill) to carry out tasks
- **Monitor, adapt, improve**
  - The team can monitor the state of the board to adapt their processes, identify bottlenecks and make improvements.
  - Change the shape of the board, adding lists
  - Change priority of tasks based on people and circumstances

Projects / Sample Kanban Project A / SKPA board

Kanban board

Release

Only My Issues

Recently Updated

BACKLOG 4

Kanban cards represent work items >> Click the "SKPA-1" link at the top of this card to show

SKPA-1

Add work items with "+ Create Issue" at the top right of the screen >> Try adding a new

SKPA-3

Work items are ranked in priority order (from top to bottom) >> Try dragging this

SKPA-4

SELECTED FOR DEVELOPMENT 1

Kanban boards are often divided into streams of work, aka Swimlanes. By default,

SKPA-2

IN PROGRESS 2 Max 1

Work In Progress (WIP) limits highlight delays. This column's limit is 1...

SKPA-6

... so 2 work items violate the limit and cause the column to be highlighted

SKPA-7

DONE 3

Filters at the top of the board allow you to quickly cut down the shown items >> Try clicking

SKPA-8

As teams develop with Kanban they get better at reducing average resolution time (aka

SKPA-9

Instructions for deleting this sample board and project are in the description for this issue >>

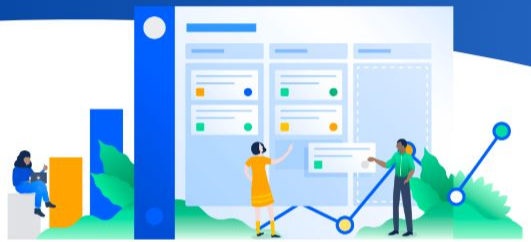
SKPA-10

SCRUM VS Kanban

- Scrum is better suited for projects with defined features
- Kanban is better for
  - support
  - unpredictable development
  - lightweight development
  - not very structured work
  - short lived projects/tasks

Jira Software

Cloud Free



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- ✓ Scale agile practices
- ✓ Consolidate workflows
- ✓ Expand visibility
- ✓ Plan, track, and release

Get started

Free for up to 10 users

Continue with Google

OR

Sign up with email

ATLASSIAN

Back to JIRA

- Issues
  - Epics, stories, bugs, features are just different types of issues
- Projects
  - Is a collection of issues
- Workflow
  - is a set of statuses that an issue in a project can have, along with the transitions between statuses that the issue can go through.
- Versions
  - Used for tracking purposes, Jira allows you to create a version and add whatever issues that are going to be released into that version.
- Components
  - They are basically used to group issues within a project.

Issues

An issue is a data structure that contains

- Title
- Description
- Due date
- Priority
- Status
- So on and so forth...

Jira Software | Your work | Projects | Filters | Dashboards | People | Apps | Create | Search

transpar3nt
Classic software project

Board TRAN
Board

- Backlog
- Active sprints
- Reports
- Issues
- Components
- Code
- Releases
- Pages
- Add item
- Project settings

Projects / transpar3nt / B

Backlog

Share

VERSIONS
EPICS

+ Create issue

Backlog 182 issues

- As a user I war
- As a user, I war
- As a user, I war
- As a user, I war
- As a user I war
- As a user I war
- As a user, I war
- As an organiza
- As a user, I war
- As a user, I war
- As a user, I war

Create issue

Import issues | Configure fields

Project*
transpar3nt (TRAN)

Issue Type*
Story

- Task
- Bug
- Epic

npatible field configuration and/or workflow associations.

Components
None

Attachment
Drop files to attach, or browse.

Description
Style | B | I | U | A | A | | | | | | | |

Reporter*

Create another | Create | Cancel

TRAN-4 / TRAN-5 | 1

As a user, I want to report fraudulent users so that they can't do maliciuos operations

To Do

Description
Add a description...

Assignee
Unassigned

Reporter
FS
Add a comment...
Pro tip: press M to comment

Quickstart

Versions

Have you ever seen this kind of information attached to a new version of an app?

Novità

Cronologia aggiornamenti

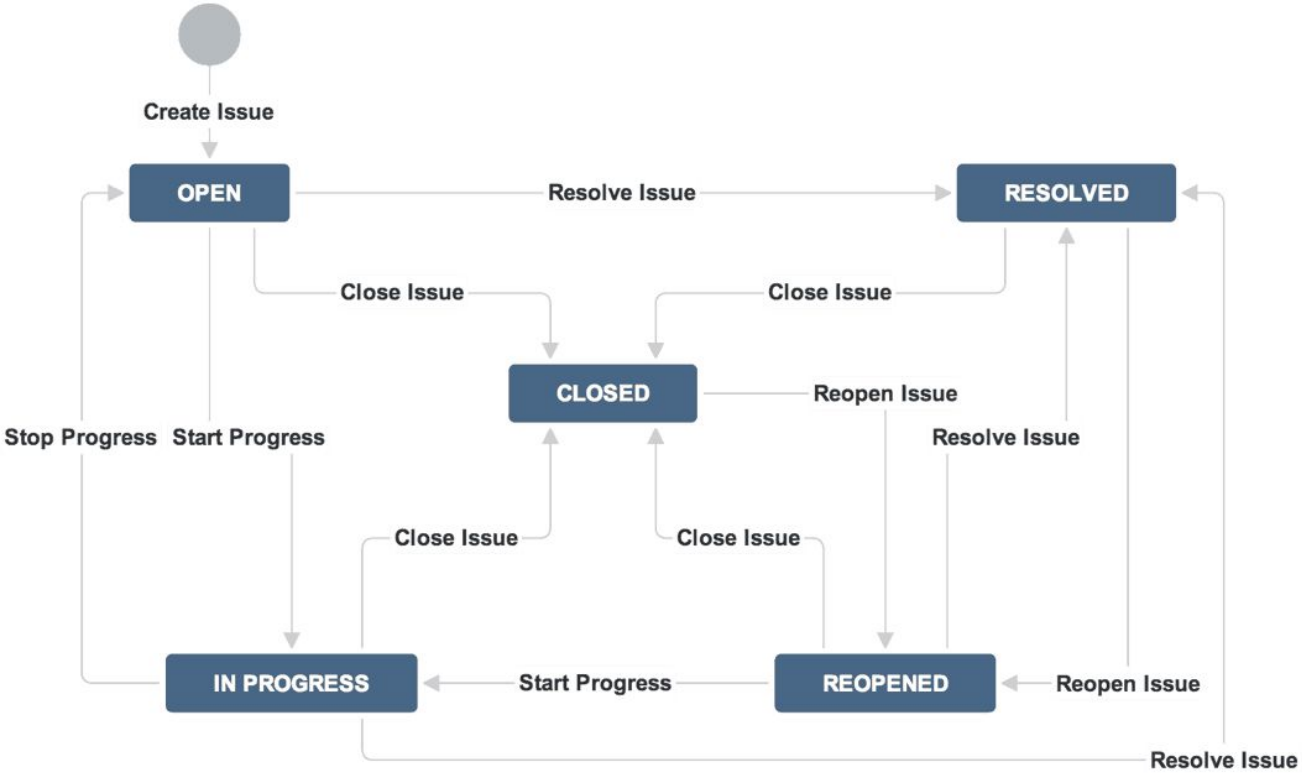
La versione più recente presenta la risoluzione di vari problemi tecnici e numerosi miglioramenti delle prestazioni.

Versione 162.0

This is a changelog.

In this form is simple… but not very informative

Typical workflow example



A better changelog

Confluence Spaces People

TeamCity

Blog

SPACE SHORTCUTS

ChangeLog

CHILD PAGES

ChangeLog

TeamCity 2020.1 Release N…

Pages / TeamCity EAP / ChangeLog

TeamCity 2020.1 Release Notes

Created by Maria Kudryavtseva on May 17, 2020

For the overview of the most important new features check What's New in TeamCity 2020.1.

Feature

- TW-49672 — Use token-based CSRF protection and do not rely on Origin/Referer headers
- TW-9157 — Making investigations history info available
- TW-65792 — Define custom order for notification rules tabs
- TW-54953 — Allow easy way to install agent with all the plugins (e.g. to use for cloud image preparation to speed up new cloud agent connection)
- TW-54229 — Official Support for Slack
- TW-64983 — Build Schedules tab: add option to hide triggers with 'Trigger only if there are pending changes' option enabled
- TW-66011 — Update default maven version
- TW-66004 — Update "what's new" link for 2020
- TW-64857 — auto-assigner: assign some types of build problems instantly always
- TW-64162 — Support for 1.x sbt versions
- TW-60059 — UI for "add to favorites" and custom order
- TW-65334 — Allow to edit change description on secondary node
- TW-65199 — Enable agent-related user actions on secondary nodes
- TW-65461 — Enable auto-update for secondary nodes
- TW-64633 — Allow to initiate check for pending changes from secondary nodes
- TW-63346 — Allow to change user profile and properties from secondary nodes
- TW-64438 — Extract 'processing triggers' responsibility and make it possible to enable it on a secondary node
- TW-65101 — Add "Errors" and "Important messages" filter options in build log view
- TW-61790 — Pull requests support for Azure DevOps

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If you build a very complex project, you and up with a changelog like this…

The changes are coming from Jira and the Changelog is automatically generated in Confluence ;)

No manual work, no missing information.

Components

Perhaps your project is broken into back in development and front end of it.

So you could create both of these as components and be able to group your issues accordingly.

It's almost like a category of work, used to organize issues and automating process.

For instance you can configure issues created under a component to have a default assignee so that when created, it's automatically assigned to the right person.

Jira interface anatomy

- Product/project picker
- Your work
  - Shows the project you are working on and the issues that are more relevant to you (e.g. assigned issues)
- Projects
  - show your recent projects and actions as create project and view all projects
- Filters
  - A way to save your searches in a way that is relevant for you
- Dashboard
  - A customizable page that acts like a control panel
- People
  - Recent feature, used to represent real word teams in Jira
- App
  - Integrations…

Filters

A way to save your searches in a way that is relevant for you

- Example of filters
  - My open issues
  - Reported by me
  - All issues
  - Open issues
  - Done issues
  - Updated recently...

Dashboard

Moving on, a dashboard is a page that you can create that acts kind of like a control panel and gives you various kinds of information that's relevant to you, and the information is provided through things like widgets.

And you can customize this entire page from top to bottom and add different types of gadgets that display

transpar3nt
Classic software project

Back to project

Reports

All reports

AGILE

Board TRAN
Board

Burndown Chart

Burnup Chart

Sprint Report

Velocity Chart

Cumulative Flow Diagram

Version Report

Epic Report

Control Chart

Epic Burndown

Release Burndown

ISSUE ANALYSIS

Average Age Report

Created vs Resolved Issues R...

Pie Chart Report

Recently Created Issues Rep...

All reports

Agile

Burndown Chart

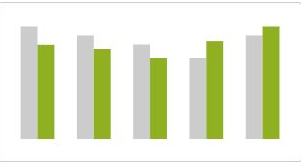
Track the total work remaining and project the likelihood of achieving the sprint goal. This helps your team manage its progress and respond accordingly.

Burnup Chart

Track the total scope independently from the total work done. This helps your team manage its progress and better understand the effect of scope change.

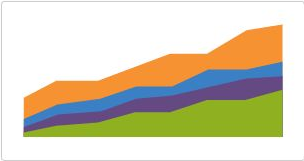
Sprint Report

Understand the work completed or pushed back to the backlog in each sprint. This helps you determine if your team is overcommitting or if there is excessive scope creep.



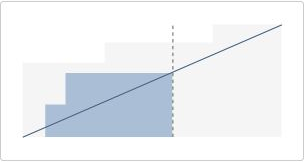
Velocity Chart

Track the amount of work completed from sprint to sprint. This helps you determine your team's velocity and estimate the work your team can realistically achieve in future sprints.



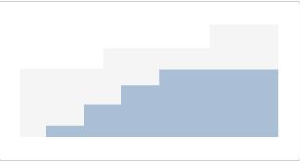
Cumulative Flow Diagram

Shows the statuses of issues over time. This helps you identify potential bottlenecks that need to be investigated.



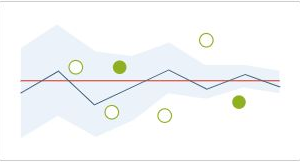
Version Report

Track the projected release date for a version. This helps you monitor whether the version will release on time, so you can take action if work is falling behind.



Epic Report

Understand the progress towards completing an epic over time. This helps you manage your team's progress by tracking the remaining incomplete/unestimated work.



Control Chart

Shows the cycle time for your product, version or sprint. This helps you identify whether data from the current process can be used to determine future performance.

transpar3nt
Classic software project

Back to project

Reports

All reports

AGILE

Board TRAN
Board

Burndown Chart

Burnup Chart

Sprint Report

Velocity Chart

Cumulative Flow Diagram

Version Report

Epic Report

Control Chart

Epic Burndown

Release Burndown

ISSUE ANALYSIS

Average Age Report

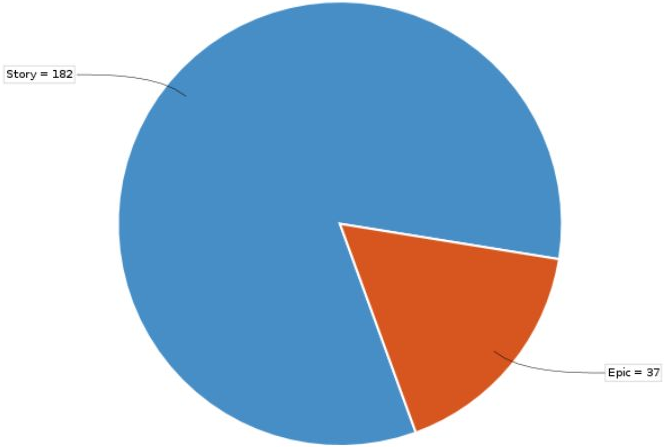
Created vs Resolved Issues R...

Pie Chart Report

Pie Chart Report

Project: transpar3nt (Issue Type)

Chart



Data Table

	Issues	%
Story	182	83%
Epic	37	16%

Apps

You can integrate Jira with your existing tools… for instance...

Microsoft Teams for Jira

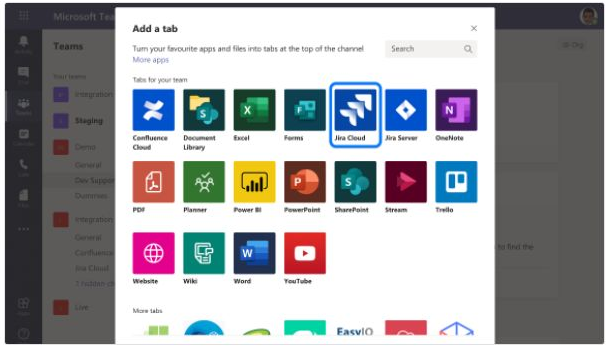
by Atlassian

(171)

Get app

FREE

Jira integration for Microsoft Teams

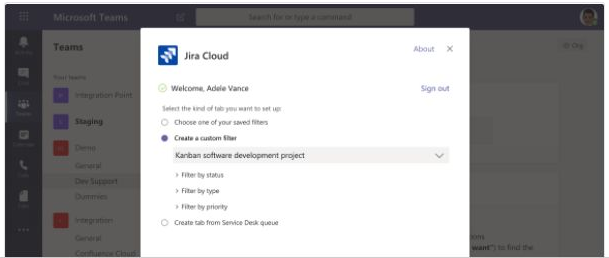


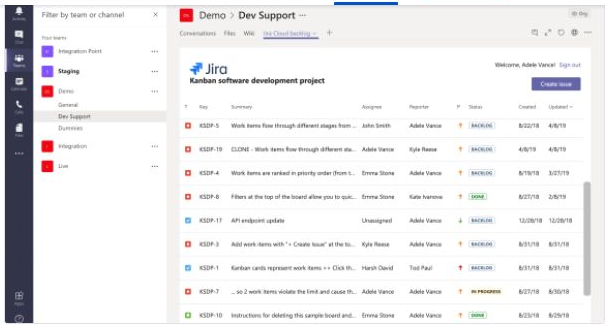
Add the Jira Cloud tab in Microsoft Teams.

After installing add-on to your team's Jira, you are ready to add your first Jira tab in Microsoft Teams. To do this, select the Jira Cloud tile.

Select your Jira project.

Find a project you are working on or apply filters if you need to narrow down results.





Work on your issues together with your team.

Discuss your backlog just within Microsoft Teams.

More details

Jira Cloud for Microsoft Teams makes collaboration and communication over the backlog easy and smooth. Create tabs with issues and track and discuss your team's progress in your channel without leaving Microsoft Teams.

Note: You need administrator access to install add-on.

Privacy and security

Privacy policy

Atlassian's privacy policy is not applicable to the use of this app. Please refer to the privacy policy provided by this app's vendor.

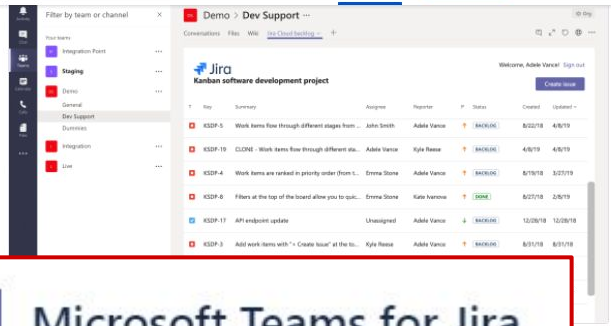
Vendor privacy policy

Security

This app is not part of the Marketplace Bug Bounty program.
Learn more

This partner has not completed the Security Self-Assessment Program.
Learn more

View all info on marketplace ↗



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View all info on marketplace ↗

Confluence

Confluence

Is a content management system or Wiki tool that allows you to organize your work and collaborate

Typically used to store

- Wiki
- Project plans
- Knowledge base
- Team documentation
- Meeting notes
- Product requirements

but ultimately the kind of documents stored depends on the organization

Confluence main features

- Create and organize rich content related to anything and everything
- Real-time collaboration on documents
- Document templates for easy content creation
- Seamless integration with JIRA
- Automatic version control
- Automatic saving
- Apps and extensions available for added functionality

Confluence terms

- Spaces
  - Like a directory, is a way to organize contents
  - Confluence comprises of Spaces like JIRA comprises of Projects
- Pages
  - Any kind of content-document (e.g. meeting notes, articles, product specifications...)
  - Spaces contain Pages like JIRA Projects contain Issues
- Macros (advanced)
  - Dynamic content that can be added into a Page
    - Table of contents
    - JIRA Issue Filter
    - Search bar
    - Charts
    - ...

Spaces

There are basically two kinds of spaces

- The site space
  - is a collaboration space for a particular team or project
- Personal space
  - Basically a place to work on draft where you can polish your documents before moving them to a public (site) space

Every space has its own

- pages
- files
- and an optional blog

Create space

Filter

Help

5 new items have been added

Blank space
Start with a blank space.

Personal space NEW
Keep your notes, task lists and other content organised.

Documentation space NEW
Create and manage technical documentation for your products

Knowledge base NEW
Capture and share best practices and solutions to common problems.

Software project space NEW
Create software requirements, capture meeting notes, and track decisions.

Team space NEW
Collaborate and share resources with your team.

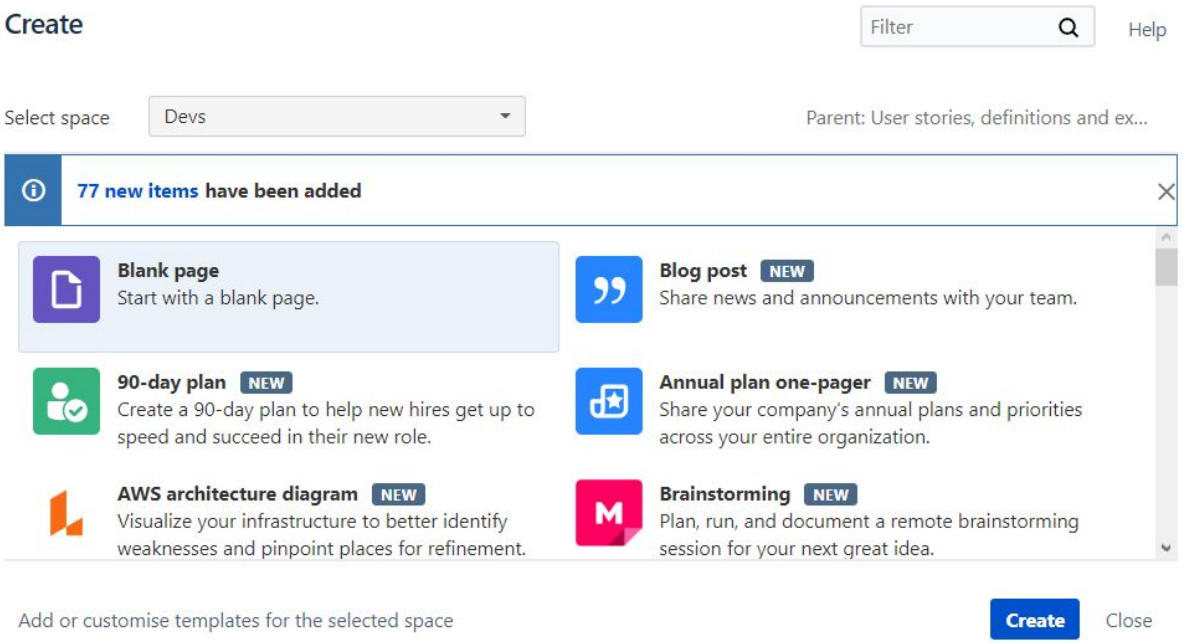
Next

Close

Pages templates

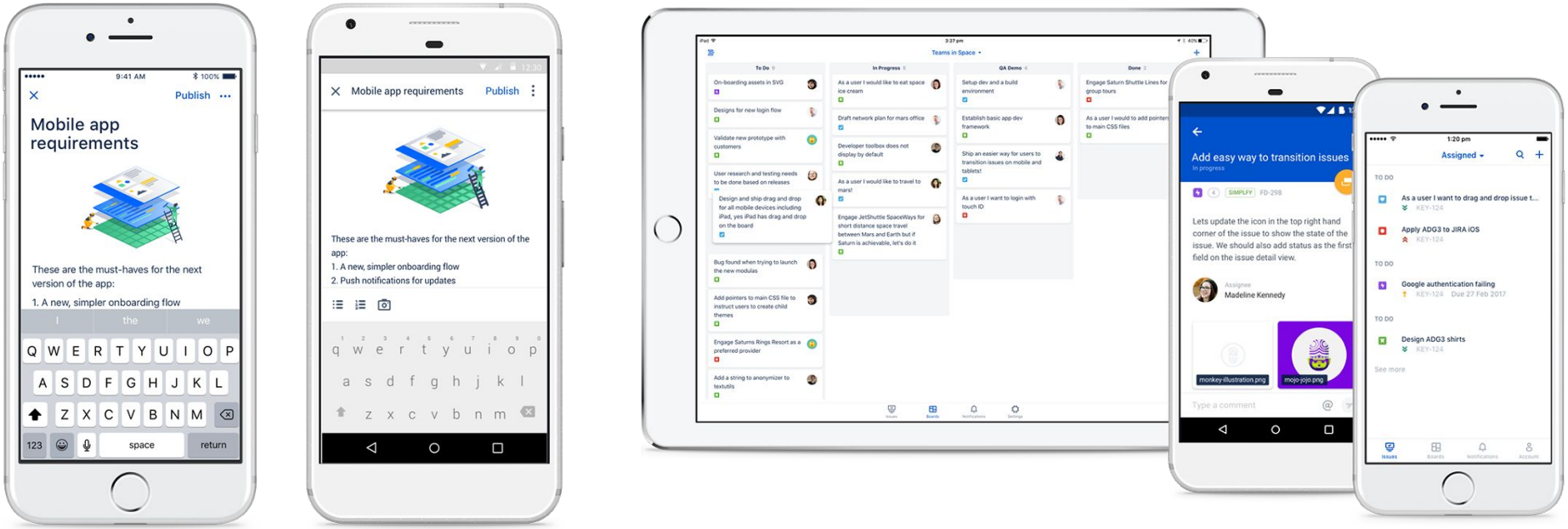
- You don’t need to use all of them on a day to day basis
- But if you do have some time, I recommend just going through the list and just keeping it at the back of your mind.
- Use your personal space from time to time to try new templates

Page templates



Mobile Apps

Jira and Confluence are also available as mobile apps on Apple App Store and Google Play Store.



Conclusions

Jira and Confluence are two of the most used (and powerful) solutions for project management and Wiki.

Whether you will be working in an IT company or another type of organized company, it is very likely that during your career you will use them.

This is why it is important to understand the mechanisms and motivations behind these tools.

In the end, the tools change frequently, but the methodologies don't.