



# Agile Project Management

How agile methodologies can work for your software team

## What is agile project management?

Software teams have been embracing agile project management methodologies for nearly a decade, increasing their speed, collaboration, and ability to respond to market trends.

But what is it, and can it help your software team? Here is everything you need to know to get started, or refine, your agile project management practices.

## History

Agile project management is an iterative approach to managing software development projects that focuses on continuous releases and incorporating customer feedback with every iteration.

Stemming from Toyota's lean manufacturing concept of the 1940s, software development teams have embraced agile methodologies to reduce waste and increase transparency while quickly addressing their

Traditional agile project management can be categorized into two frameworks: scrum and kanban. While scrum is focused on fixed-length project iterations, kanban is focused on continuous releases. Upon completion, the team immediately moves on to the next.

## How scrum works

Scrum is a framework for agile project management that uses fixed-length iterations of work, called sprints. There are four ceremonies that bring structure to each sprint.

It all starts with the backlog, or body of work that needs to be done. In scrum, there are two backlogs: one is the product backlog (owned by the product owner) which is a prioritized list of features, and the other is the sprint backlog which is filled by taking issues from the top of the product backlog until the capacity for the next sprint is reached. Scrum teams have unique roles specific to their stake in the process. Typically there's a scrum master, or champion of the scrum method for the team; the product owner, who's the voice of the product; and the scrum team, who are often cross-functional team members in charge of getting s@#\$ done.

### The four ceremonies of scrum

Sprint Planning	Sprint Demo	Daily Standup	Retrospective
A team planning meeting that determines what to complete in the coming sprint.	A sharing meeting where the team shows what they've shipped in that sprint.	Also known as a stand-up, a 15-minute mini-meeting for the software team to sync.	A review of what did and didn't go well with actions to make the next sprint better.

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The screenshot shows the Jira interface for the 'Teams in Space' project. The left sidebar contains navigation options: Backlog, Board (selected), Reports, Releases, Components, Issues, Repository, Add item, and Settings. The main area displays a Scrum board with four columns: TO DO (5 items), IN PROGRESS (5 items), CODE REVIEW (2 items), and DONE (8 items). Each column contains task cards with titles, labels, status icons, counts, and assignees.

Column <th <th>Item Count</th> <th>Task Title</th> <th>Label</th> <th>Status</th> <th>Count</th> <th>Assignee</th>	Item Count	Task Title	Label	Status	Count	Assignee
TO DO	5	Engage Jupiter Express for outer solar system travel	SPACE TRAVEL PARTNERS	✓	5	TIS-25
		Create 90 day plans for all departments in the Mars Office	LOCAL MARS OFFICE	⬆	9	TIS-12
		Engage Saturn's Rings Resort as a preferred provider	SPACE TRAVEL PARTNERS	⬆	3	TIS-17
		Enable Speedy SpaceCraft as the preferred	SPACE TRAVEL PARTNERS	⬆	3	TIS-17
IN PROGRESS	5	Requesting available flights is now taking > 5 seconds	SEESPACEEZ PLUS	✓	3	TIS-8
		Engage Saturn Shuttle Lines for group tours	SPACE TRAVEL PARTNERS	✓	4	TIS-15
		Establish a catering vendor to provide meal service	LOCAL MARS OFFICE	⬆	4	TIS-15
		Engage Saturn Shuttle Lines for group tours	SPACE TRAVEL PARTNERS	⬆	4	TIS-15
CODE REVIEW	2	Register with the Mars Ministry of Revenue	LOCAL MARS OFFICE	✓	3	TIS-11
		Draft network plan for Mars Office	LOCAL MARS OFFICE	✓	3	TIS-15
DONE	8	Homepage footer uses an inline style - should use a class	LARGE TEAM SUPPORT	⬆	68	TIS-68
		Engage JetShuttle SpaceWays for travel	SPACE TRAVEL PARTNERS	⬆	5	TIS-23
		Engage Saturn Shuttle Lines for group tours	SPACE TRAVEL PARTNERS	✓	1	TIS-15
		Establish a catering vendor to provide meal service	LOCAL MARS OFFICE	⬆	4	TIS-15

## The scrum board

A scrum board is used to visualize all the work in a given sprint. During the sprint planning meeting, the team moves items from the product backlog into the sprint backlog. Scrum boards can have multiple steps

## How kanban works

Kanban is a framework for agile project management that matches the work to the team's capacity. It's focused on getting things done as fast as possible, giving teams the ability to react to change even faster than scrum.

Unlike scrum, kanban has no backlogs (usually). Instead, work sits in the To Do column. This enables kanban teams to focus on continuous releases, which can be done at any time. All work is visible, scoped, and ready to execute on so that when something is completed, the team immediately moves on to the next. The amount of work is matched to the team's capacity through [WIP limits](#), which is a predefined limit of work that can be in a single column at one time (except the To Do column). The kanban framework includes the following four components:

### The four components of kanban

List of work (or stories)	Columns or lanes	Work in Progress Limits (WIP)	Continuous Releases
List of work, or stories, are defined as issues or tasks that need to get done.	Used on a kanban board to distinguish tasks from different workstreams, users, projects, etc.	A rule to limit the amount of work to be done based on the team's capacity.	The team works on the amount of stories within the WIP limit and can release at anytime.

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**Teams in Space**  
Software project

**Board**

Release ...

Quick filters ▾ Assignee ▾ Sprint ▾

TO DO 5

IN PROGRESS 5

IN REVIEW 2

DONE 8

Super important 11 issues

When requesting user details the service should return prior trip info  
SEESPACEEZ PLUS  
TIS-37

Engage Jupiter Express for outer solar system travel  
SPACE TRAVEL PARTNERS  
TIS-25

Create 90 day plans for all departments in the Mars Office  
LOCAL MARS OFFICE  
TIS-12

Requesting available flights is now taking > 5 seconds  
SEESPACEEZ PLUS  
TIS-8

Engage Saturn Shuttle Lines for group tours  
SPACE TRAVEL PARTNERS  
TIS-15

Establish a catering vendor to provide meal service  
LOCAL MARS OFFICE  
TIS-15

Engage Saturn Shuttle Lines

Register with the Mars Ministry of Revenue  
LOCAL MARS OFFICE  
TIS-11

Draft network plan for Mars Office  
LOCAL MARS OFFICE  
TIS-15

Add pointer to main css file to instruct users to create child themes  
LARGE TEAM SUPPORT  
TIS-56

Homepage footer uses an inline style - should use a class  
LARGE TEAM SUPPORT  
TIS-68

Engage JetShuttle SpaceWays for travel  
SPACE TRAVEL PARTNERS  
TIS-23

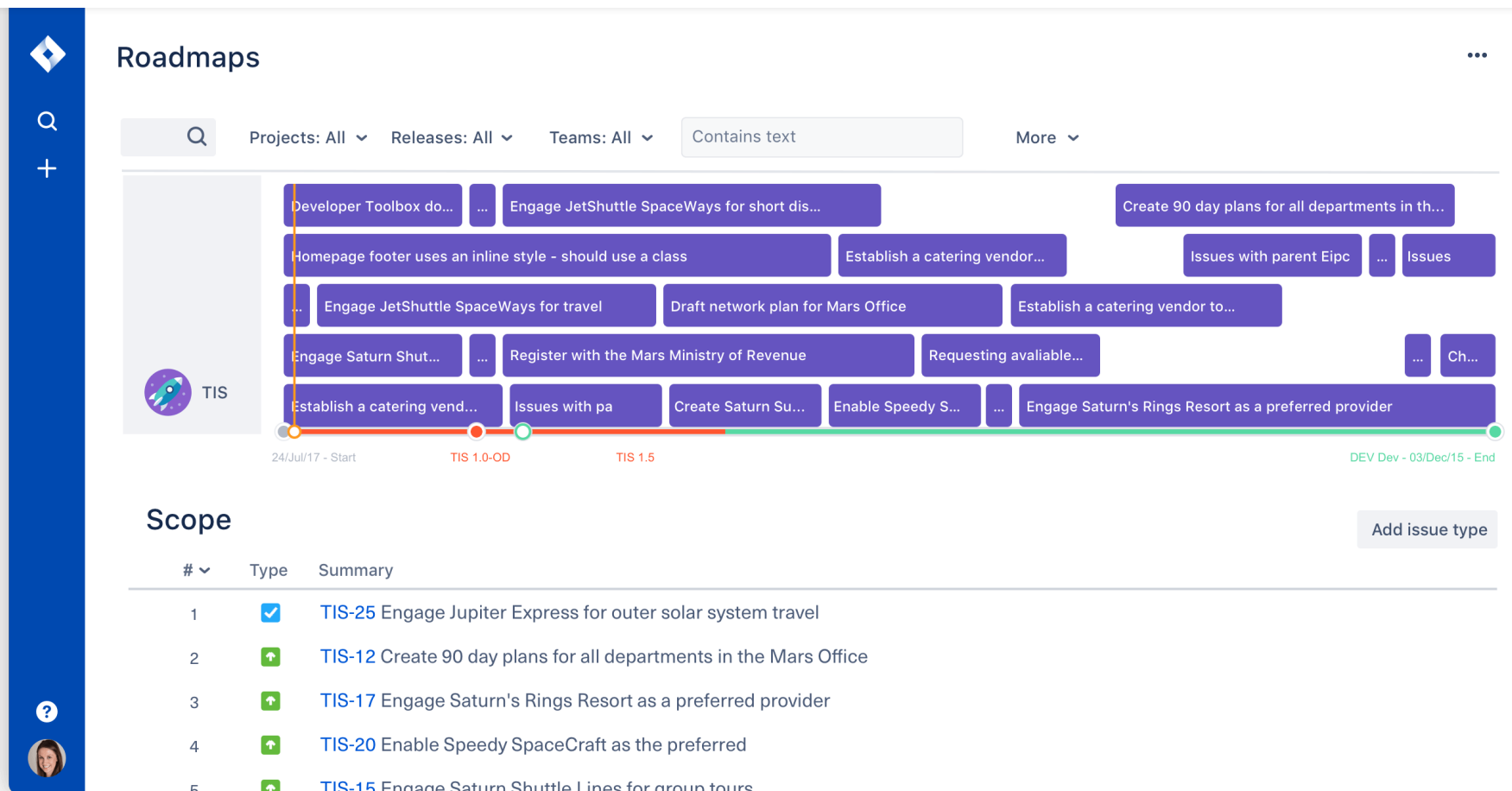
## The kanban board

A kanban board is used to visualize all the work that's being done. It's also used for planning resources allowing project managers to see the work and develop timelines accordingly. A kanban board is structured into columns and lanes that stories pass through on their way to completion. Stories sit in the To Do column until the WIP limit allows for the next

## Estimate, report and plan

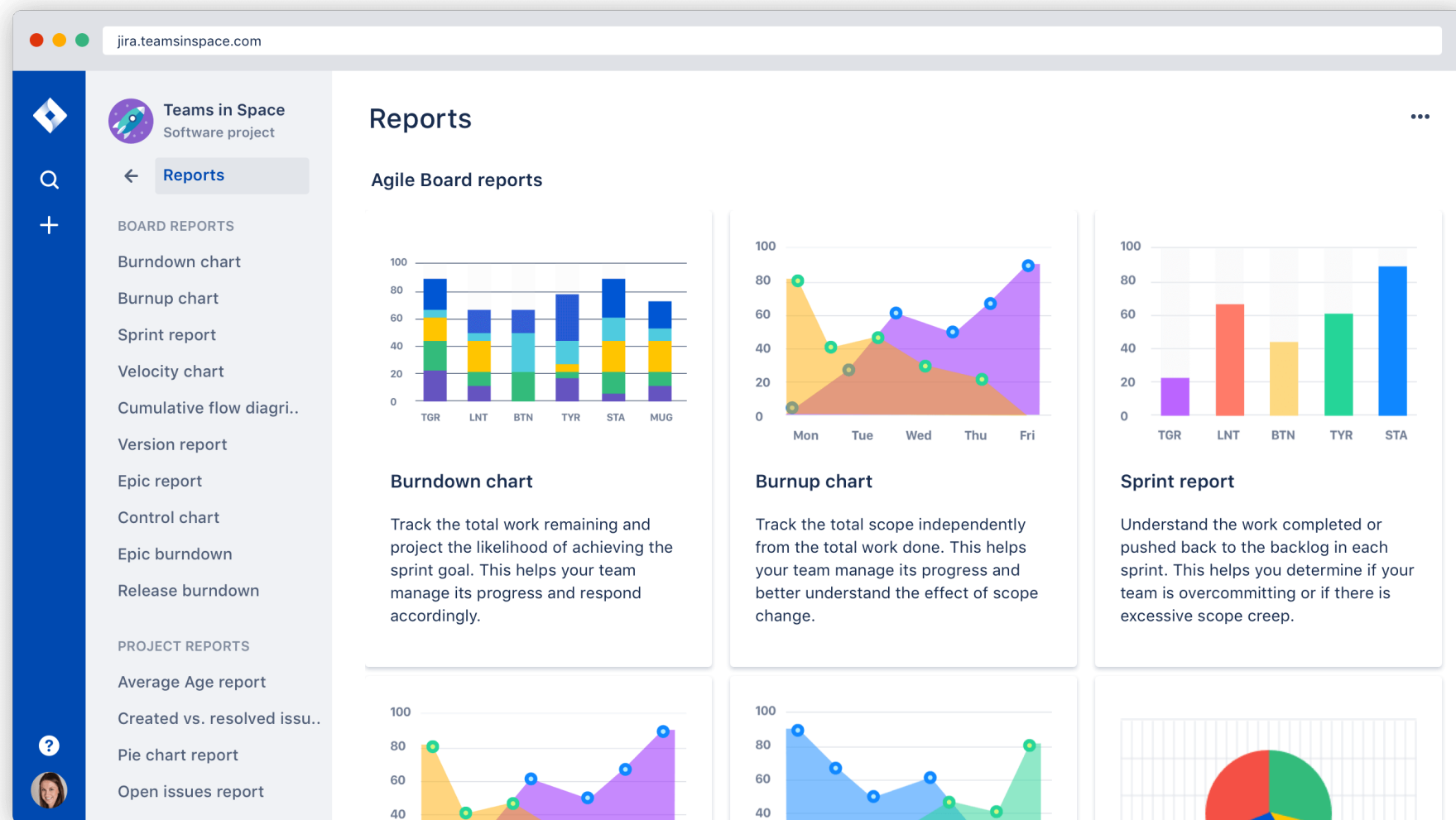
Whatever agile framework you choose to support your software development, you'll need a way to see your team's progress so you can plan for future work or sprints. Agile [project estimating](#) helps both scrum and kanban teams understand their capacity. Agile reports show the team's progress over time. And backlog grooming helps project managers keep the list of work current and ready for the team to tackle.

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## Agile project estimating

Project estimating is an extremely important aspect of both kanban and scrum project management. For kanban, many teams set their **WIP limit** for each state based on their previous experiences and team size. Scrum teams use project estimating to identify how much work can be done in a particular sprint. Many agile teams adopt unique estimating techniques like planning poker, ideal hours, or story points to determine a numeric value for the task at hand. This gives



## Agile reporting






Project estimations come into play at the beginning and end of each sprint. They help teams determine what they can get done at the beginning of the sprint, but also show how accurate those initial estimates were at the end. [Agile](#)



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**Sprint 2** 3 issues

Start sprint

- |   |          |   |                       |   |   |
|---|----------|---|-----------------------|---|---|
| <input checked="" type="checkbox"/>   | ATMOS-25 | Engage Jupiter Express for outer sola...    | SPACE TRAVEL PARTNERS |  | 5 |
|  | ATMOS-37 | Warranty - it's not possible to redirect... | LARGE TEAM SUPPORT    |  | 5 |
|  | ATMOS-9  | When requesting user details, it shoul...   | SEE SPACEEZ PLUS      |  | 5 |

[+ Create issue](#)**Backlog** 19 issues

Create sprint

- |   |          |  |                       |   |   |
|---|----------|--|-----------------------|---|---|
|  | ATMOS-7  | After 100,000 requests, the SpaceEZ s... | SEE SPACEEZ PLUS      |  | 5 |
|  | ATMOS-10 | Session affinity - SessionBasedAnony...  | LARGE TEAM SUPPORT    |  | 5 |
|  | ATMOS-19 | 500 Error when requesting a reservati... | SEE SPACEEZ PLUS      |  | 5 |
| <input checked="" type="checkbox"/>   | ATMOS-41 | Bad JSON data coming back from hot...    | SPACE TRAVEL PARTNERS |  | 5 |

[+ Create issue](#)

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A **product backlog** is a prioritized list of work for the development team to do that comes from product roadmap and its requirements. The development team pulls work from the product backlog for each sprint.

Grooming and maintaining your backlog helps teams achieve their long-term goals by continually adding and removing items based on the team's long-term capacity and changing business objectives. Jira Software lets teams groom huge backlogs with multi-select ranking and order user stories and bugs by dragging and dropping issues. You can also filter with Jira Software's flexible search to find a particular user story or bug.



CLAIRE DRUMOND

As a content strategist and Product Marketing Manager for Jira, I get the opportunity to sit between storytelling and product. In my spare time, I think of new podcast ideas, write fiction, and run the Embarcadero with my dog – sometimes all at once.

## Agile project management articles

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## Waterfall vs agile: How to run an agile program

Explore the difference between agile vs. waterfall, start to build your agile program with roadmaps, requirements, backlogs, metrics, epics and sprints.

### ARTICLE

## Get started building an agile workflow

Agile workflows help bring structure to scale your software development process. Learn more about workflow management to support your agile program.

### ARTICLE

## Epics, Stories, Themes, and Initiatives

These popular agile methodologies help teams strike a healthy balance between structure and flexibility

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## Epics

An epic is a large body of work that can be broken down into a number of smaller stories. Learn more about how to organize an agile workflow with epics.

ARTICLE

## User Stories

User stories are system requirements often expressed as “persona + need + purpose.” Learn how stories drive agile programs & how to get started.

ARTICLE

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An inside look into secrets of agile estimation and story points. Good agile estimation lets product owners optimize for efficiency and impact.

#### ARTICLE

## Five agile metrics you won't hate

How to use agile metrics. Learn about sprint burndown, epic and release burndown, velocity, control charts & the cumulative flow diagram.

#### TUTORIAL

## Learn scrum with Jira Software

A step-by-step guide on how to drive a scrum project, prioritize and organize your backlog into sprints, run the scrum ceremonies and more, all in Jira.

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## Scrum - a brief introduction to scrum methodology

In scrum, a product is built in a series of fixed-length iterations called sprints. Learn how the scrum methodology can impact the software development.

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