Contents

Sprints (Scrum)

1/25/2019 • 2 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

With Scrum, you can schedule and plan sprints, update your taskboard, and monitor your sprint burndown. For an overview of the Scrum lifecycle, see What is Scrum?.

5-Minute Quickstarts

Start tracking work by adding work items, creating your backlog, or scheduling sprints.

- Schedule sprints
- Define iteration paths

Step-by-Step Tutorials

Whether you use scrum, Kanban, or a combination of Agile methods, you can get started tracking bugs, driving your Git development, and more using the Agile tools available to you.

1. Assign backlog items to a sprint
2. Add tasks to backlog items
3. Set sprint capacity
4. Adjust work to fit sprint capacity
5. Share your sprint plan
6. Update the Taskboard

Concepts

- Scrum best practices
- Sprints and Scrum key concepts
- Scrum and sprint planning tools
- About areas and iterations
- About permissions and access
- Share information in work items and social tools

How-to Guides

- Filter backlogs & queries
- Copy list of work items
- Bulk add or modify (Web)

Reference

- Permissions and access for work tracking
- Work item field index
- Backlog keyboard shortcuts

Resources

- Backlogs
- Kanban
- Work item queries
- Work item customization
- What is Scrum?
- What is Agile development?

About Sprints, Scrum and project management

1/31/2019 • 2 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

The Scrum method uses sprints to plan work to perform by a team within a specific time period and cadence. To get started, several sprints are predefined for your team. If you're new to Scrum, get an overview from What is Scrum?.

Sprint backlogs and taskboards

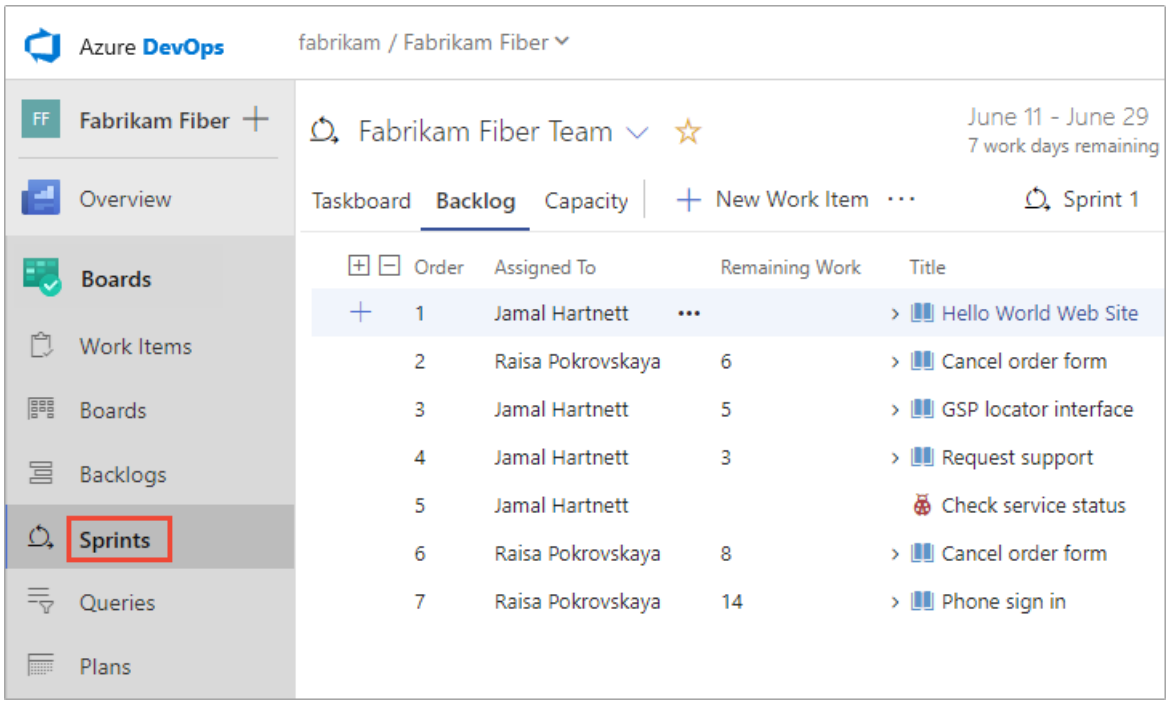
Sprint backlogs and taskboards provide a filtered view of work items a team has assigned to a specific iteration path, or sprint. Sprints are defined for a project and then selected by teams. From your backlog, you can map work to an iteration path using drag-and-drop, and then view that work in a separate **sprint backlog**.

> **NOTE**
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

> **NOTE**
> Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

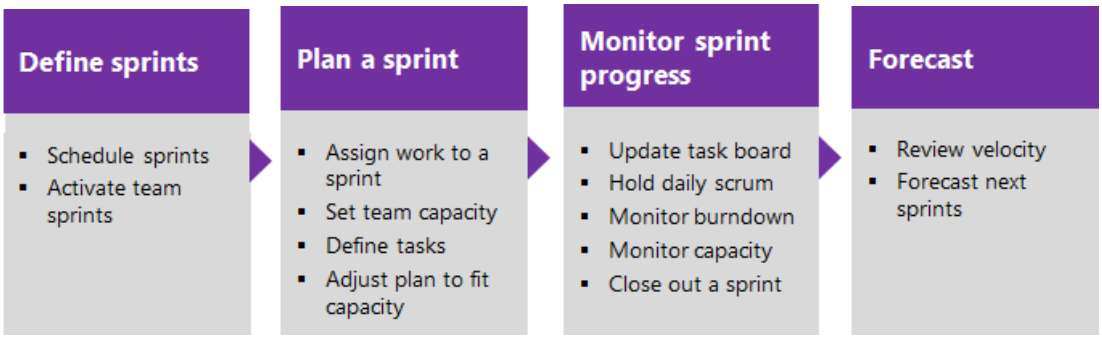
> **NOTE**
> Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

- New navigation
- Previous navigation



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Implement Scrum



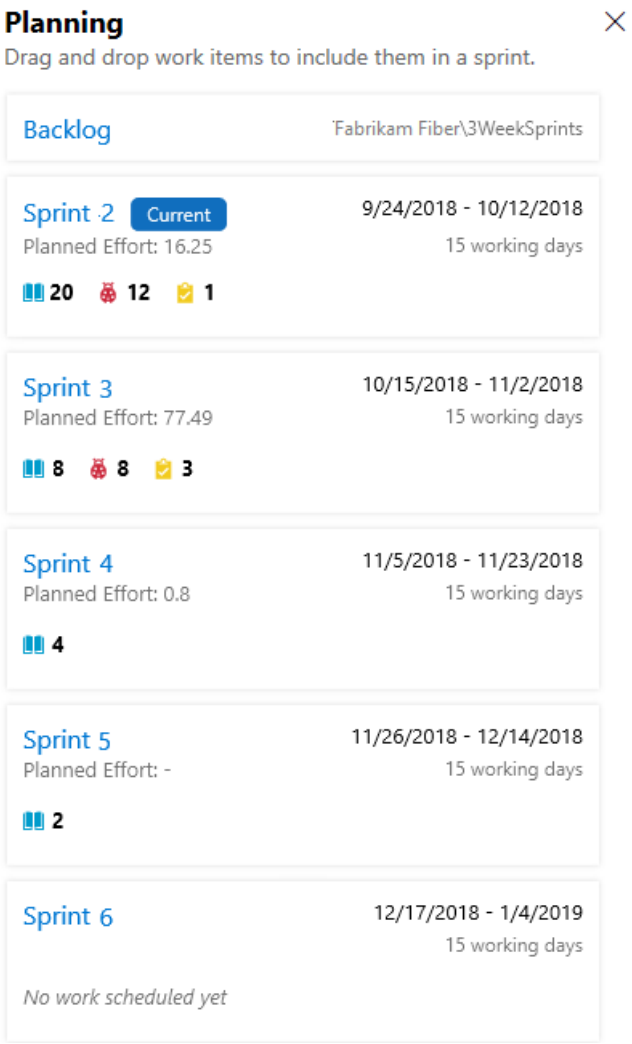
You can quickly assign work items to a sprint by dragging and dropping them from the product backlog to the sprint.

How selected sprints show up on the backlog

Each sprint that you select for your team provides access to a sprint backlog, taskboard, and other Agile tools for planning and tracking work.

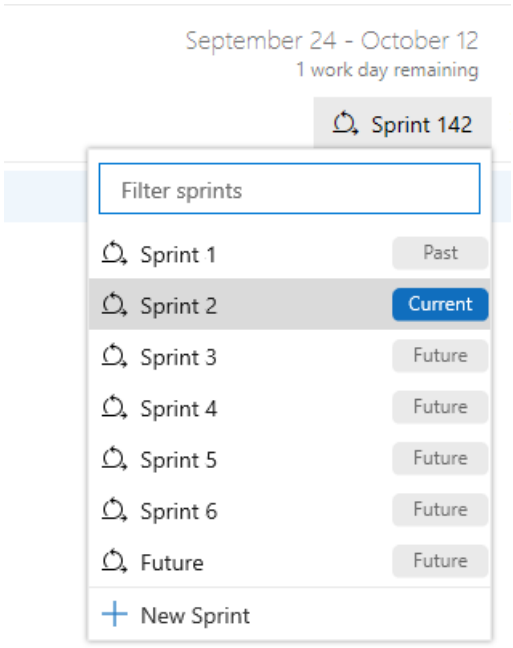
- New navigation
- Previous navigation

1. You can gain an overview of your sprint planning by turning the **Planning** view option on. From the product backlog or any sprint backlog, choose the view options icon and select **Planning**.



The set of sprints selected for your team appears. If you don't see any sprints listed, you can add sprints or select existing sprints for your team's use. To learn how, see Define sprints.

2. To select a sprint backlog, you can choose one of the sprint links from the **Planning** pane, or from a Sprint backlog, choose a sprint from the sprint selector.



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

2/7/2019 • 11 minutes to read • Edit Online

Tasks supported by Backlogs, Boards, Taskboards, and Delivery plans

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

What can you do from a backlog view versus a board view? How do these differ from plans? How do changes you make in one show up on the other? What customizations can you make for each?

Backlogs and boards

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

What can you do from a backlog view versus a board view? How do changes you make in one show up on the other? What customizations can you make for each?

Which view should you use to work with Agile methods?

In a nutshell...

- Backlogs display work items as a list and boards display them as cards
- You use your product backlog to quickly plan and prioritize your work
- You use your sprint backlogs and taskboards when you work in Scrum
- You use your Kanban board to update work status and when you employ Kanban methods
- Each backlog is associated with a board, changes to priority order you make in one are reflected in its corresponding board
- Plans allow you to review the deliverables for several teams across sprints and a calendar schedule
- Backlogs, boards, and plans are configurable for each team.

- Backlogs display work items as a list and boards display them as cards
- You use your product backlog to quickly plan and prioritize your work
- You use your sprint backlogs and taskboards when you work in Scrum
- You use your Kanban board to update work status and when you employ Kanban methods
- Each backlog is associated with a board, changes to priority order you make in one are reflected in its corresponding board

- Each backlog and board is configurable for each team.

With list backlogs you can quickly develop your project plan; group and prioritize work; and perform bulk updates on selected work items. With boards, you can quickly update status and fields displayed for each work item.

And with plans, you can monitor progress, deliverables, and dependencies across several teams.

You access your backlogs and boards from a web portal. When you work from the Stories (Agile) or Backlog items (Scrum) pages, you have access to the product backlog and Kanban board. When you work from a sprint page, you have access to the sprint backlog and taskboard. For an overview of working in Scrum or Kanban, see What is Azure Boards?.

NOTE

Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

NOTE

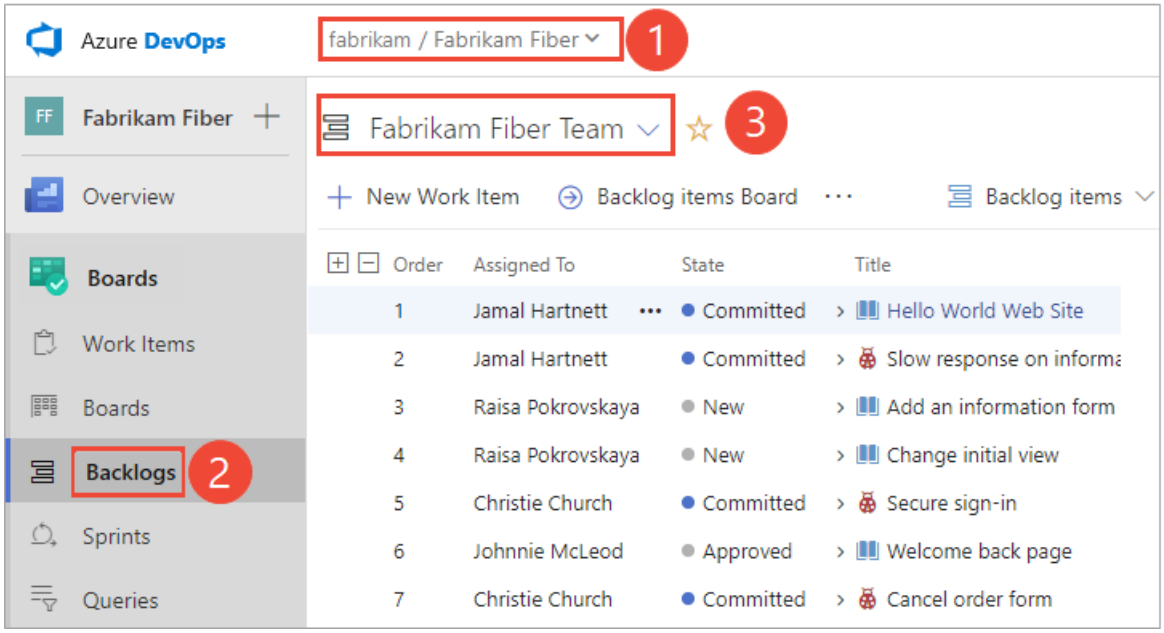
Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

NOTE

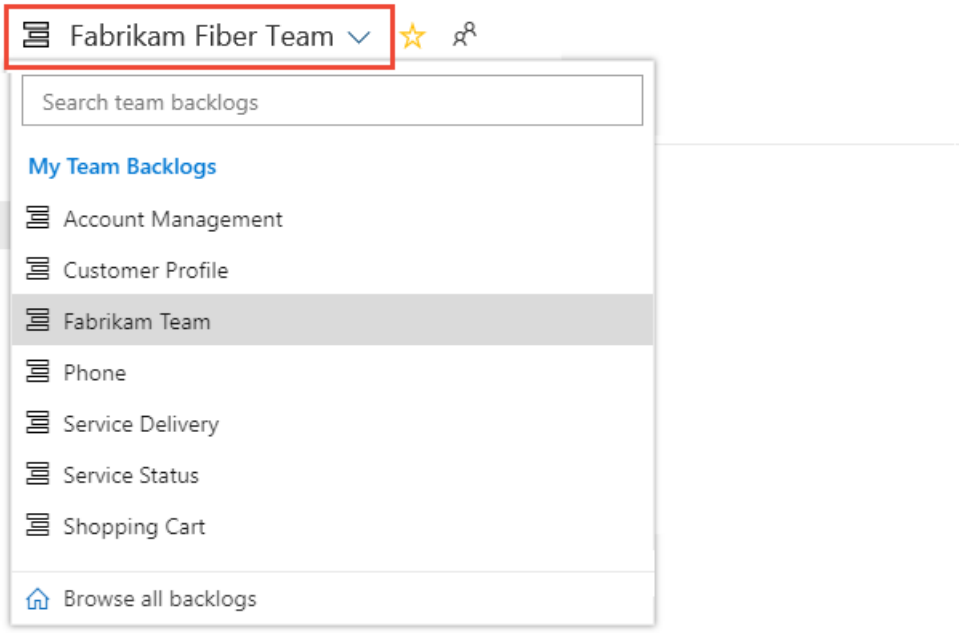
Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

- New navigation
- Previous navigation

1. (1) Check that you have selected the right project, (2) choose **Boards>Backlogs**, and then (3) select the correct team from the team selector menu.



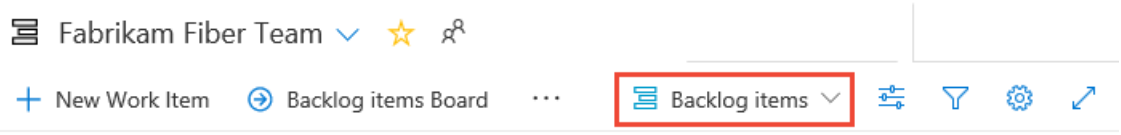
To choose another team, open the selector and select a different team or choose the **Browse all sprints** option. Or, you can enter a keyword in the search box to filter the list of team backlogs for the project.



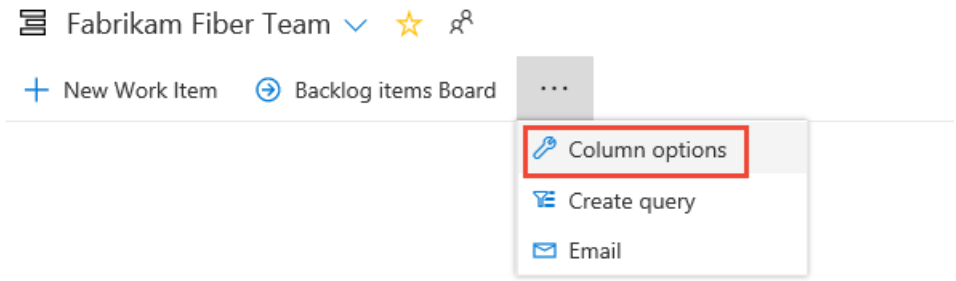
TIP

Choose the ☆ star icon to favorite a team backlog. Favorited artifacts (★ favorited icon) appear at the top of the team selector list.

2. Check that you have selected **Backlog items** (for Scrum), **Stories** (for Agile), or **Requirements** (for CMMI) as the backlog level.



3. (Optional) To choose which columns should display and in what order, choose the ··· actions icon and select **Column options**. To learn more, see Change column options.



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Three classes of backlogs, two types of boards

To manage work, you have access to three classes of backlogs—portfolio, product, and sprint—and two types of boards—Kanban and task. Backlogs list work items, boards display work items as cards. Backlog and board views provide similar and distinct features to support planning and tracking.

You use work items to share information, assign work to team members, track dependencies, organize work, and more. You can apply different filters to your backlogs and boards to just show those items of interest.

Portfolio, product, and sprint backlogs

Portfolio backlogs typically track high-level features, scenarios, or epics. Your product backlog contains a prioritized list of user stories, deliverables, or work you plan to build or fix. Portfolio backlogs help you organize your product backlog into a hierarchy of elements. Sprint backlogs contain just those items that each team is working on during a scheduled sprint or iteration period.

For details about working in each type of backlog, see Create your backlog, Define features and epics, and Sprint planning (sprint backlogs).

> **TIP**
> You can't sort a backlog by column. However, you can use the Create Query option on each backlog to create a query that you can sort on any field column you choose. To learn more about queries, see Use the query editor to list and manage queries.

Kanban and Taskboards

Kanban and Taskboards support visualizing the flow of work and monitoring metrics to optimize that flow. Kanban boards track requirements, are sprint-independent, and you monitor the flow through the cumulative flow chart. Taskboards track tasks defined for a sprint and you monitor the flow via the sprint burndown chart.

For details about working in each type of board, see Kanban basics and taskboard.

Feature support across backlogs and boards

The following table indicates those elements or tasks associated with each type of backlog and board.

ASSOCIATED ELEMENT OR TASK	BACKLOG TYPE: PORTFOLIO	BACKLOG TYPE: PRODUCT	BOARD TYPE: KANBAN	BACKLOG TYPE: SPRINT	BOARD TYPE: TASK
Corresponding backlog or board type	Kanban	Kanban	Portfolio or product	Task	Sprint
Add items and child items (see notes 1, 2)	Yes	Yes	Yes	Yes	Yes
Reorder items	Yes	Yes	Yes	Yes	Yes
Map items	Yes (except the top-level portfolio backlog)	Yes	No	No	No
Filter	Text or tags	Text or tags	Text or select fields	Text	Backlog items or people
Show/hide parents	Yes (except the top-level portfolio backlog)	Yes	No	No	No
Show/hide in progress items (see note 3)	Yes	Yes	No	No	No
Forecast	No	Yes	No	No	No

Customize: show bugs (see note 1)	No	Yes	Yes	Yes	Yes
Customize: Columns	Yes, see Column options	Yes, see Column options	Yes, see Add columns	Yes, see Column options	Yes, see Customize workflow
Customize: Add more backlog or board views	Yes, see Select backlog navigation levels	Yes, when you add another team (see note 4)	Yes, see Select backlog navigation levels	Yes, see Schedule sprints	Yes, see Schedule sprints
Customize: cards	n/a	n/a	Yes	n/a	Yes
Charts	Cumulative flow Velocity	Cumulative flow Velocity	Cumulative flow Velocity	Sprint burndown	Sprint burndown
Duration (see note 5)	Project or release	Project	Project	Sprint	Sprint

Notes:

1. Each team can determine how they want to track bugs: as requirements, as tasks, or not at all. When tracked as requirements, they appear in your product backlog, sprint backlogs, and Kanban board. When tracked as tasks, they appear in your sprint backlogs and taskboards. For details, see Show bugs on backlogs and boards.
2. Work items that appear on each team backlog and board meet the criteria defined for the team selected area and iteration paths.
3. The **In progress items Show/Hide** control is another filter you can apply to your product and portfolio backlogs. This control essentially shows or hides those work items where work has begun. It's useful to show/hide In Progress items when forecasting sprint work.
4. When you add a team, you essentially add another product backlog associated with that team. Each team can then manage their own set of sprint backlogs and portfolio backlogs. See Manage teams and configure team tools for details.
5. Duration refers to how you use your backlog or board to plan and track work over time. Once you change the State of a work item to done or completed, it no longer appears on a portfolio or project backlog. As you complete each sprint, the system maintains a history of your activity. You can review past sprints and sprint burndown charts by choosing the sprint listed under the Past section. For more information, see Sprint burndown.

Product backlog "In Progress" filter

The In progress items **Show/Hide** filter causes some backlog items to display or not display. Bugs and other backlog items aren't listed when **In progress items=Hide** and their assigned State corresponds to an In Progress state category. Bugs in a New state will display, however, bugs in an Assigned state won't. To learn more about state categories, see Workflow states and state categories.

On your backlog, set **In progress items** to **Show** to see all active bugs and other items on your backlog.

Delivery plans display team deliverables

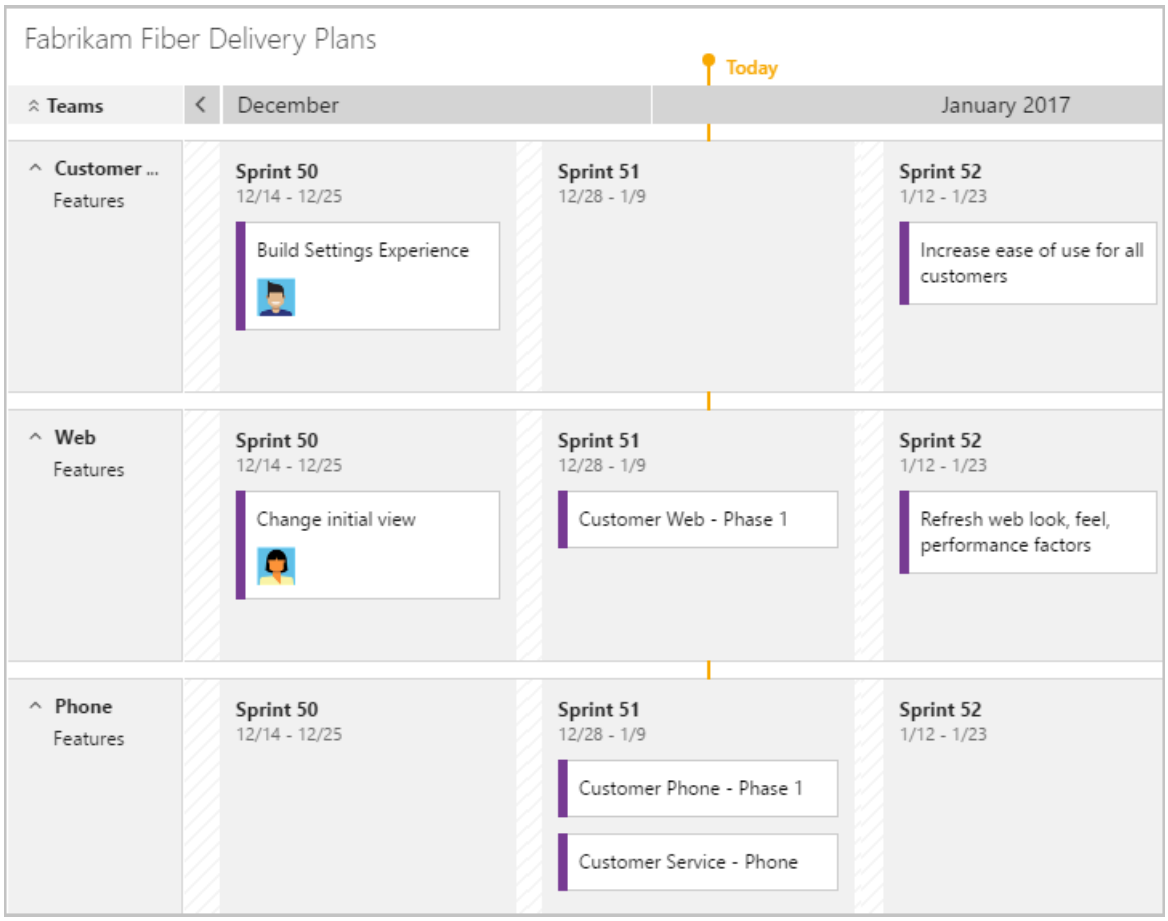
With Delivery Plans, you gain tailor-made views across several teams and their development backlogs—stories, features, or epics. You can use these views to drive alignment across teams by overlaying several backlogs onto your delivery schedule. All users with basic access can view, add, and configure Delivery Plans. Stakeholders,

however, don't have access to Delivery Plans.

You install Delivery Plans from the Visual Studio Marketplace, in the Azure DevOps tab. All users with basic access can view, add, and configure Delivery Plans. Stakeholders, however, don't have access to Delivery Plans.

Delivery Plans is available for TFS 2017.2 and later versions.

When you configure a plan, you select the team or teams and backlog levels of interest. To learn more about Delivery Plans, see Review team plans.



Taskboard items versus query list items

You may notice and wonder why the items shown on the taskboard may differ from those listed in a query created from its corresponding sprint backlog.

It's possible to assign tasks to an iteration but not have them linked to a parent backlog item. These items will show up in the created query, but might not show up on the taskboard itself. The system runs the query and then applies a few background processes before displaying the taskboard items.

These reasons can cause work items that belong to the Task Category to not appear on a sprint backlog or taskboard:

- The task hasn't been linked to a parent backlog item. Only those bugs and tasks that you have linked to a parent product backlog item (Scrum), user story (Agile), or requirement (CMMI) whose iteration path is set to the sprint will appear on the sprint backlog page.
- The task is a parent of another task, or the user story is a parent of another user story. If you've created a hierarchy of tasks or user stories, only the child-level tasks or the child-level stories at the bottom of the hierarchy appear.
- The task's linked parent corresponds to a backlog item defined for another team. Or, the area path of the task's parent backlog item differs from the task's area path.

Customize backlog and board levels

If you need more than three backlog and board levels, you can add more. To learn how, see Customize your backlogs or boards for a process.

If you need more than three backlog levels and board levels, you can add more. You can also add or modify the fields defined for a work item type (WIT) or add a custom WIT. To learn how, see the following articles based on the process model used to update your project:

Inheritance process model:

- Customize your backlogs or boards for a process.
- Customize an inheritance process

On-premises XML process model:

- Add portfolio backlogs
- Customize the On-premises XML process model

If you need more than three backlog and board levels, you can add more. To learn how, see Add portfolio backlogs.

Related articles

Now that you understand how backlogs, boards, and plans work, get started using them to plan and track your work.

Now that you understand how backlogs and boards work, get started using them to plan and track your work.

A few things to keep in mind...

- Every team owns their own backlog, to add a new set of backlogs and boards, you add a new team
- To have work performed by several teams roll up to a portfolio backlog, you'll want to setup the team hierarchy
- Every backlog has a corresponding Kanban board you can use to track progress and update status
- Each team can control how bugs show up on their backlogs
- When you add child items they're linked to their parent using parent-child links which support hierarchical views and tree queries

Additional articles of interest:

- About teams and Agile tools
- Add work items
- Dashboards

Additional tools from the Marketplace

You may find additional tools to help plan and track your work from the Visual Studio Marketplace, Azure DevOps tab.

Best tool to add, update, and link work items

2/7/2019 • 6 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Azure Boards provides you several tools—many designed to perform a single task and others that support several tasks. This article provides a guide to the best tool for specific tasks that will help you work most efficiently.

Work item form

If you want to make a single update to one work item, you can do that from within the work item form. When you want to add or update several work items at a time, then you'll want to use a backlog or query.

Work item form controls | Work item field index

Best tool for:

- Updating a work item field for a single work item
- Adding to the discussion, mentioning others in the discussion
- Choosing to follow or unfollow a work item
- Driving Git development, creating a branch
- Adding a link to another work item or external object
- Copying or cloning a work item
- Deleting the work item

Additional supported tasks:

- Share information
- Copy the work item URL
- Capturing the work item to use as a template
- Updating fields of the work item by applying an existing template

Work Items

Use the Work Items page to quickly focus on work items of interest to you.

Best tool for:

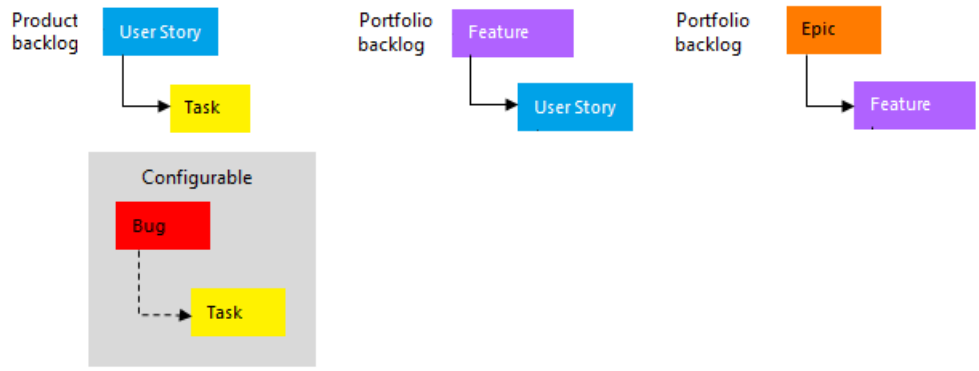
- Listing and filtering work items of interest to you, specifically work items that meet the following criteria:
  - That are assigned to you
  - That you chose to follow
  - Where you were mentioned
  - That you've recently viewed or updated
  - That has been recently updated, completed, or created for the project.

Additional supported tasks:

- Add a work item
- Restore work items from the recycle bin
- View work items through a mobile browser

Boards

The two types of Kanban boards, product backlog and portfolio backlogs, provide the quickest means for adding user stories and portfolio work item types. You can also quickly add and update the status of child items within a hierarchy. As shown in the following image for the Agile process, when you add tasks to user stories, users stories to features, or features to epics, you automatically create parent-child links between the work items.



Product backlog board | Features or Epics board | Customize cards

Best tool for:

- Implementing Kanban methods
- Viewing the flow of work from inception to completion
- Quickly adding product backlog and portfolio backlog items
- Updating the status of backlog items
- Adding linked child items (task checklists, user stories or features)
- Filtering work items to focus on different views
- Adding, running, and updating inline test cases)

Additional supported tasks:

- Assigning a work item, updating a field displayed on a card
- Monitoring cumulative flow
- Monitoring lead time and cycle time control charts

- Assigning a work item, updating a field displayed on a card
- Monitoring cumulative flow

Backlogs

You can quickly add and prioritize your product and portfolio backlogs, which list work items either as a flat or hierarchical list. You can also quickly add and reparent child items within a hierarchy.

Product backlog | Portfolio backlogs

Best tool for:

- Managing your product backlog, developing your project plan
- Quickly adding product and portfolio backlog items
- Moving backlog items in priority order
- Creating, viewing, and modifying a hierarchy of backlog items
- Organizing your backlog, linking or mapping backlog items to portfolio backlog items
- Planning a sprint

- Forecasting work
- Emailing a list of backlog items

Additional supported tasks:

- Bulk modifying work items
  - Change work item type
  - Move work item to a different project
  - Assign work items, change the iteration
  - Add or remove tags
  - Delete work items
- Creating a Git branch from one or more work items
- Monitoring team velocity

- Bulk modifying work items
  - Assign work items, change the iteration
  - Delete work items
  - Add or remove tags
- Creating a Git branch from one or more work items
- Restoring work items from the recycle bin
- Monitoring team velocity

- Bulk modifying work items
- Assigning work items, change the iteration
- Adding or removing tags
- Restoring work items from the recycle bin
- Monitoring team velocity

- Bulk modifying work items
- Assigning work items, change the iteration
- Adding or removing tags
- Monitoring team velocity

Sprints

Sprint tools provide teams a focused view of work items they've assigned to a specific sprint. You can add tasks to work items and prioritize your sprint backlog.

Sprint backlog | Taskboard | Capacity

Best set of tools for:

- Implementing Scrum methods
- Adding tasks to backlog items
- Configuring team capacity
- Monitoring and adjusting team capacity
- Updating remaining work, and task status
- Emailing or sharing a sprint plan

Additional supported tasks:

- Monitoring sprint burndown
- Bulk modifying work items

Queries

Queries enable you to filter work items within or across projects for the purposes of listing, updating, or sharing work items.

- Queries | Query operators

Best tool for:

- Listing items to perform bulk updates, assign or reassign
- Listing a tree of parent-child related work item or dependent work items
- Triaging work items (review, set priority, update)
- Creating simple progress and trend charts
- Emailing a list work items

Additional supported tasks:

- Create a chart and add it to a dashboard
- Create a chart to get a count of items or sum a field
- Create a chart that shows a burndown or burnup over time

Plans

When you want to review the schedule of stories or features your teams plan to deliver, use Delivery Plans. Plans show scheduled work items that are assigned to sprints of selected teams against a calendar view.

Best tool for:

- Viewing product or portfolio work items assigned to several teams against a calendar schedule

Additional supported tasks:

- Moving a work item to a different iteration

Office integration tools

> **NOTE**
> Starting with Azure DevOps Server 2019 and Visual Studio 2019, the Team Foundation plug-in for Office is deprecating support for Office Project and Storyboarding with PowerPoint.

OFFICE APPLICATION	BEST TOOL FOR:
Excel	• Adding or updating many work items and their fields • Adding or changing hierarchical links between work items
Project	• Importing a project plan to a project • Adding tasks to Project and publishing them as work items • Creating or updating parent-child links or predecessor-successor links

Storyboarding with PowerPoint	• Storyboarding features and user interface changes • Linking your storyboard to a work item • Adding and sharing storyboard shapes

Test tools, test artifacts, and bugs

Testing tools used several work item types—such as test plans, test suites, test cases, and more. You create and manage them from **Test Plans/Test** or using one or more test tools. Several of these tools also support creating bugs.

TEST TOOL	BEST TOOL FOR:
Test Plans	• Test Plans and Test Suites • Test Cases • Test Cases, grid view • Shared Steps, Shared Parameters • Delete test artifacts **Additional supported tasks**: • Track test status • Order manual tests within suites • Export test plans and test suites • Assign testers to test cases
Test Runner	• Running tests, adding bugs
Test & Feedback extension	• Exploratory testing, capture feedback in connected mode • Adding bugs, tasks, and test cases linked to a work item • Requesting feedback • Providing feedback **Additional supported tasks**: • Updating existing bugs • Capture feedback in standalone mode • Capture screen recordings of your app during testing

<

Other tools

TOOL	BEST TOOL FOR:
Adhoc search	• Find a specific work item using its ID or a keyword • Find one or more work items across all projects in a fast, flexible manner • Perform full text search across all work item fields • Review work items assigned to a specific team member • Search against specific work item fields to quickly narrow down a list of work items • Determine what key words will support a managed search.

Work item templates	• Capture templates • Apply templates to update work items • Use templates to create work items • Manage work item templates.
Request and capture feedback	• Request feedback • Give feedback using Microsoft Feedback Client
Notifications	• Manage personal notifications • Manage team and project notifications • Manage organization notifications
Favorites	• Set personal and team favorites

Marketplace extensions

A number of additional tools become available when you install one of the Extensions for Azure DevOps, Boards category.

TFS Power Tools

Provides you access to these additional tools through the Team Explorer plug-in for Visual Studio. Additional requirements may apply.

- Process Template Editor
- Additional check-in policies for Team Foundation Version Control
- Team Explorer enhancements including Team Members
- Team Foundation Power Tool Command Line
- Test Attachment Cleaner
- Work Item Templates

Related articles

- Navigate in the web portal
- Navigate in Team Explorer
- Configure a Burndown or Burnup widget

Start using Azure Boards (Basic process)

1/31/2019 • 2 minutes to read • Edit Online

Azure Boards

Use this guide to sign up and start using Azure Boards.

> **IMPORTANT**
>
> **Select the version that meets your location and process**: We are experimenting with a new acquisition model which is currently available for users located in the United States and that sign up through azure.com/boards. This model supports a new Basic process.
> For International users and others who sign up through another method, the Agile process is used. Select your version of this article based on your location and process used.
>
> - **Basic process**
> - **Agile process**

Start with Sign up and invite some teammates.

Then, read Track issues and tasks to start adding and tracking issues on the Kanban board. To add columns, swimlanes, or fields to your board, see Customize your boards.

> **NOTE**
>
> This quickstart guide illustrates how to sign up, create a project based on the Basic process, and start tracking issues and tasks. If you want more information on working with other processes which offer other work item types, such as user stories and bugs, then see Choose a process.

If you use GitHub and want to track your issues in Azure Boards, see GitHub & Azure Boards.

If you are tasked with managing Azure Boards settings, review Manage your Azure Boards project for additional configurations and resources that you may want to make.

Reference

- Basic fields reference
- Key concepts
- Best tool for the job
- Default permissions & access (Security)
- Why use Azure Boards?
- Connect a project to GitHub

Additional resources

- Web portal navigation
- Work items
- Sprints (Scrum)
- Process customization

Schedule sprints

2/7/2019 • 6 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

With Scrum, teams plan and track work at regular time intervals, referred to as a sprint cadence. You define sprints to correspond to the cadence your team uses.

Many teams choose a two or three week cadence. However, you can specify shorter or longer sprint cycles. Also, you can create a release schedule which encompasses several sprints.

Prerequisites

- You must connect to a project. If you don't have a project yet, create one.
- To modify work tracking project configuration, you must be granted **Stakeholder** access or higher. For details, see About access levels.
- You must be added to a project as a member of the **Project Administrators** security group. To get added, see Set permissions at the project- or collection-level.
- Or, to add, edit, and manage Iteration Paths under a node, you must have one or more of the following permissions set to **Allow** for the node you want to manage: **Create child nodes**, **Delete this node**, and **Edit this node**, and **View permissions for this node**. By default, the user who created the project has these permissions set. To learn more, see Set permissions and access for work tracking.

Quick start guide to scheduling sprints

To quickly get started, you can use the default sprints, also referred to as iterations, that were added when your project was created. Note, you must be a member of the Project Administrators group in order to add sprints and schedule sprint dates. (If you created the project, you're a member.)

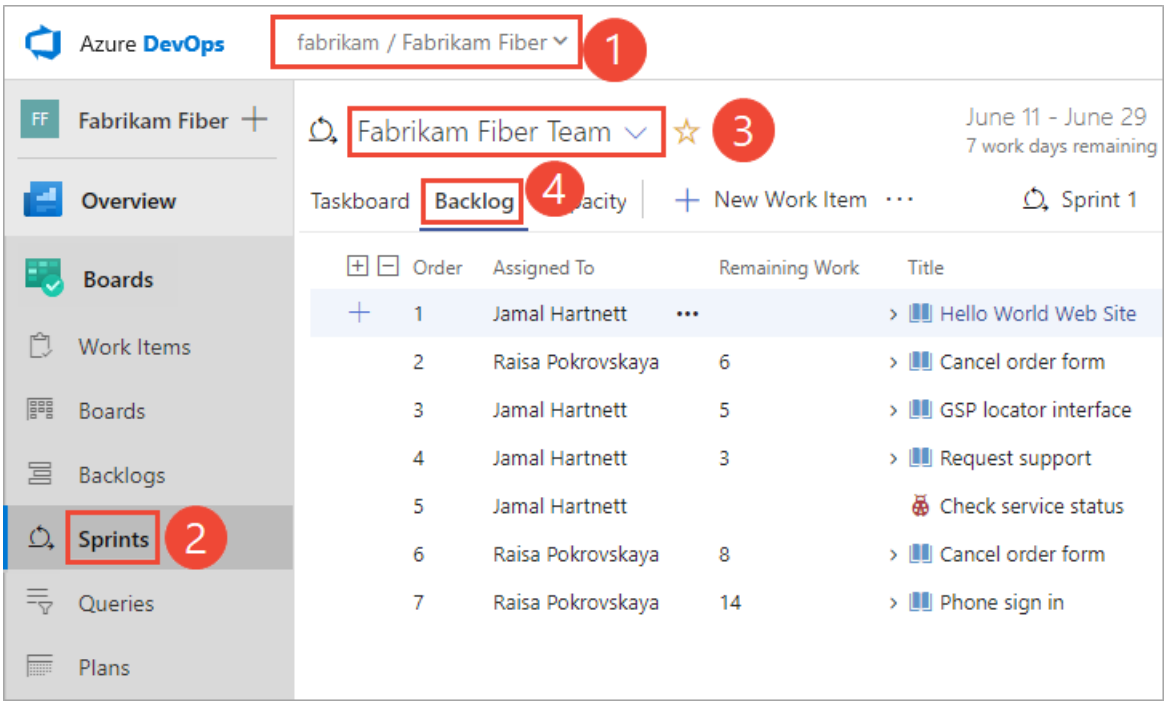
> **NOTE**
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

> **NOTE**
> Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

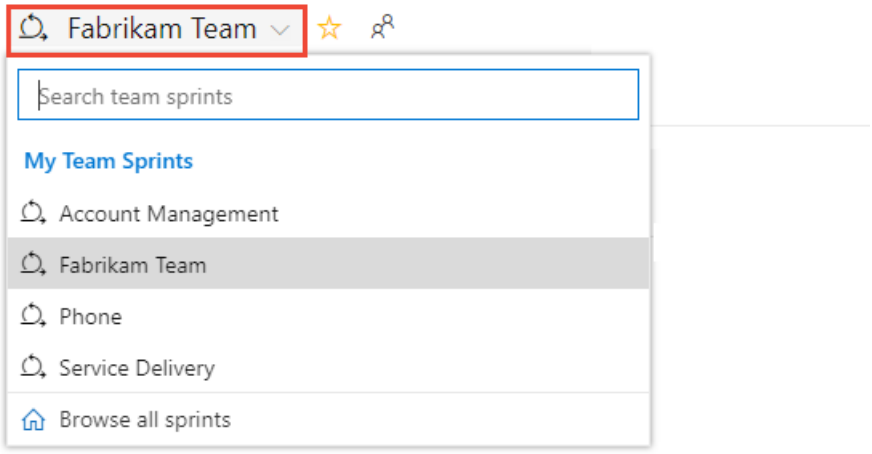
> **NOTE**
> Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

- New navigation
- Previous navigation

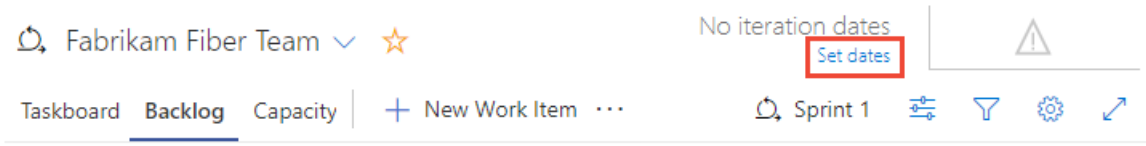
1. From your web browser, open your team's sprint backlog. (1) Check that you have selected the right project, (2) choose **Boards>Sprints**, (3) select the correct team from the team selector menu, and lastly (4), choose **Backlog**.



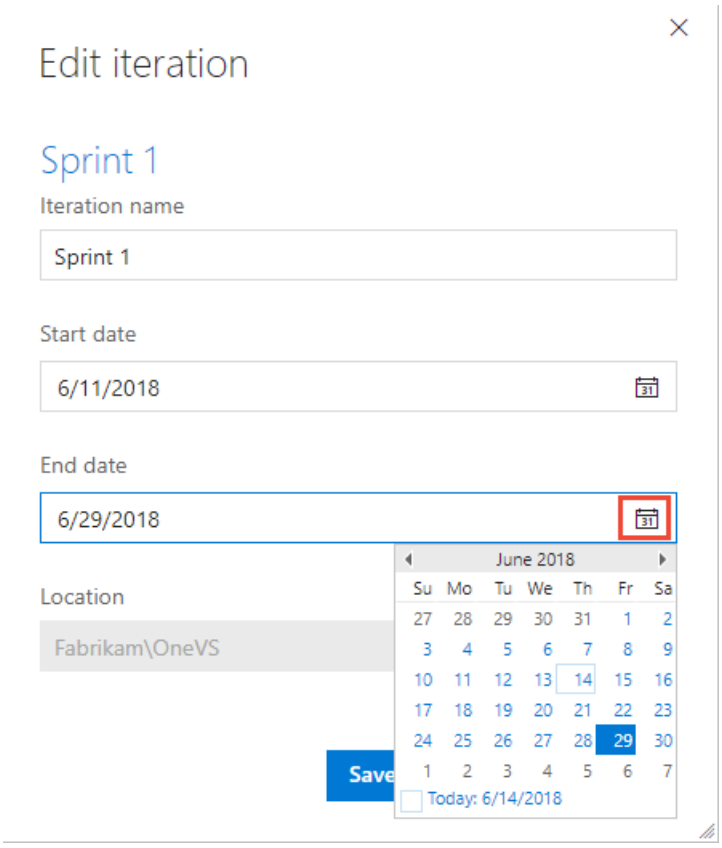
2. To choose another team, open the selector and select a different team or choose the **Browse all sprints** option. Or, you can enter a keyword in the search box to filter the list of team backlogs for the project.



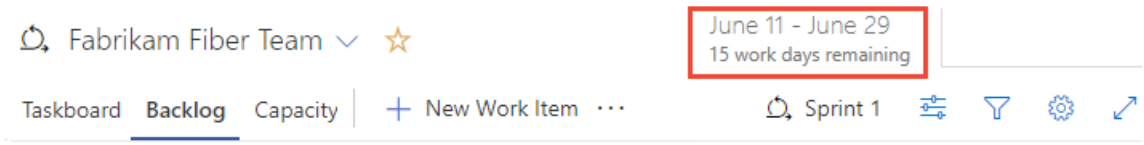
3. Choose **Set sprint dates**.



4. Choose the calendar icon to select the start date, and then the end date of the sprint.



5. Choose **Save and close**. You'll see the date listed.



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

That's it! You can now start planning your first sprint.

Of course, if you have several teams, more complex release and sprint cadences to schedule, or want to create child iterations, then you'll need to read further. You define these through the settings context for the project.

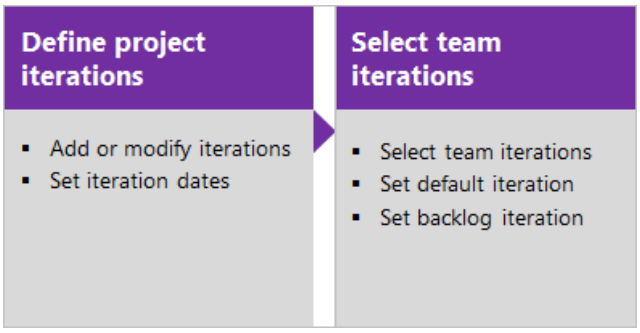
> **NOTE**
>
> **Terminology note:** Your set of Agile tools uses the Iteration Path field to track sprints and releases. When you define sprints, you define the picklist of values available for the Iteration Path field. You use iterations to group work into sprints, milestones, or releases in which they'll be worked on or shipped.

Add and schedule new sprints for several teams and release cadences

> **NOTE**
>
> Your sprint backlog and taskboard are designed to support your Scrum processes. In addition, you have access to product and portfolio backlogs and Kanban boards. For an overview of the features supported on each backlog and board, see Backlogs, boards, and plans.

Your project comes with several sprints predefined. However, they aren't associated with any dates. For Scrum and sprint planning, you'll want to assign start and end dates for the sprints your team will use.

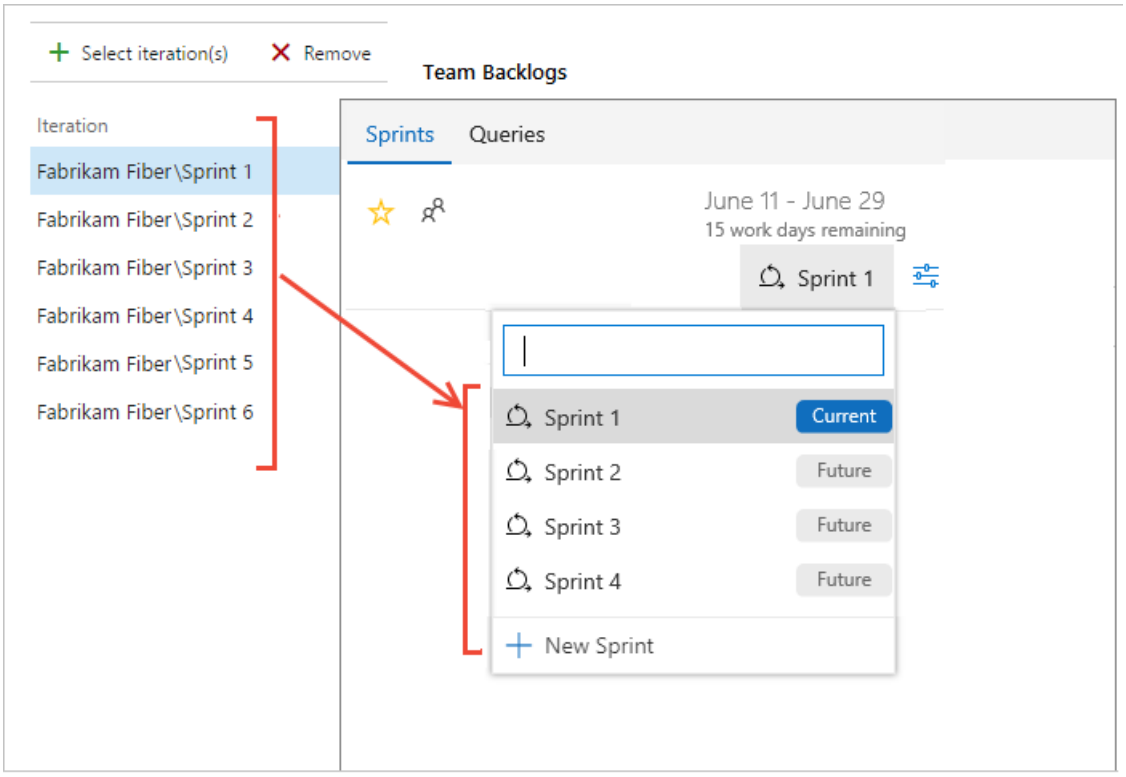
Defining additional sprints is a two-step process. You first define the sprints for your project and then you select the sprints that each team will use—Define iteration paths (aka sprints) and configure team iterations. In this way, the system supports teams that work on different sprint cadences.



Each sprint that you select for your team provides access to a sprint backlog, taskboard, and other sprint planning tools for planning and tracking work.

For example, by selecting Sprints 1 thru 6, the Fabrikam Fiber team gets access to six sprint backlogs. They also get access to capacity planning tools and a taskboard for each sprint.

- New navigation
- Previous navigation



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Try this next

Assign work to a sprint or Define iteration paths (aka sprints) and configure team iterations

Related articles

If you work with several teams, and each team wants their own backlog view, you can create additional teams. Each team then gets access to their own set of Agile tools. Each Agile tool filters work items to only include those assigned values under the team's[default area path and iteration path.

Define iteration paths (aka sprints) and configure team iterations

1/31/2019 • 13 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

You add iteration paths to support teams perform sprint planning and to group work items based on a time-box interval or sprint. You define iteration paths at the project level and then each team selects the one to be active for them under the team configuration. You can create a flat iteration path structure or a hierarchy of it paths to support releases, sub-releases, and sprints.

Each team has access to a number of Agile tools as described in About teams and Agile tools. Each tool references the team's default area path(s). Several tools reference the team's default and active iteration paths or sprints. Most teams choose one area path and several iteration paths to support their work tracking activities. However, to support other scenarios, it's possible for teams to choose several area paths to appear on their backlogs and boards.

Newly created projects contain a single, root area that corresponds to the project name. You add iteration paths under this root. Each project typically specifies a predefined set of iterations to help you get started tracking your work. All you need to do is specify the dates.

> **IMPORTANT**
> Make sure that you select the correct version of this article for Azure DevOps Services or Azure DevOps Server, renamed from Team Foundation Server (TFS). The version selector is located above the table of contents.

Prerequisites

- You add Iteration Paths to a project. If you don't have a project yet, create one now.
- To add an Iteration Path under the root node or edit or delete any child node, you must be a member of the **Project Administrators** group. To acquire these permissions, see Set permissions at the project- or collection-level.
- Or, to add, edit, and manage Iteration Paths under a node, you must have one or more of the following permissions set to **Allow** for the node you want to manage: **Create child nodes**, **Delete this node**, and **Edit this node**, and **View permissions for this node**. By default, the user who created the project has these permissions set. To learn more, see Set permissions and access for work tracking.
- To set team Iteration Paths, you must be added as the team administrator or be a member of the **Project Administrators** group.

For naming restrictions on Iteration Paths, see About areas and iterations, Naming restrictions.

Get started sequence

If you are new to managing projects and teams, the most straight forward sequence for configuring iterations for your project and teams is as follows:

1. First, define the Area Paths and teams following the guidance provided in Define area paths and assign to a team.

2. Determine the length of the iteration you want to support. Recommended practice is to have all teams use the same sprint cadence. For guidance, review About areas and iterations.
3. Determine if you want a flat structure or hierarchy of sprints and releases.
4. Open **Project settings>Project configuration** and define the Iteration Paths to support steps 2 and 3 at the project level. Follow the steps provided later in this article: Open Project Settings, Project configuration and Add iterations and set iteration dates.
5. Open the team configuration and assign the default and additional Area Path(s) to each team. Follow the steps provided later in this article: Open team settings and Set team default iteration path(s).
6. Each team should assign the default Iteration Path they selected to their work items. This is needed in order for those work items to show up on their product backlogs and boards. Use bulk modify to modify several work items at once. See also Assign backlog items to a sprint.

As needed, you can perform the following actions at any time:

- Add additional child iteration nodes
- Rename an Iteration Path (except the root path)
- Move a child Iteration Path under another node
- Delete a child Iteration Path
- Change the default and selected Iteration Paths assigned to a team

Backlog iteration versus default iteration

Teams can set a default iteration different from the backlog iteration. The backlog iteration determines which items appear on the team's backlogs and boards. And, the default iteration determines what value is assigned to work items created from the team context.

All work items that you create from your team context are automatically assigned both the team's default area path and default iteration path.

For TFS 2015 and earlier versions, the default iteration is the same as the backlog iteration. The one value selected both filters items that appear on the team's backlogs and boards, and is assigned to work items created from the team context.

Open Project Settings

From the web portal, open **Project Settings**.

> **NOTE**
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

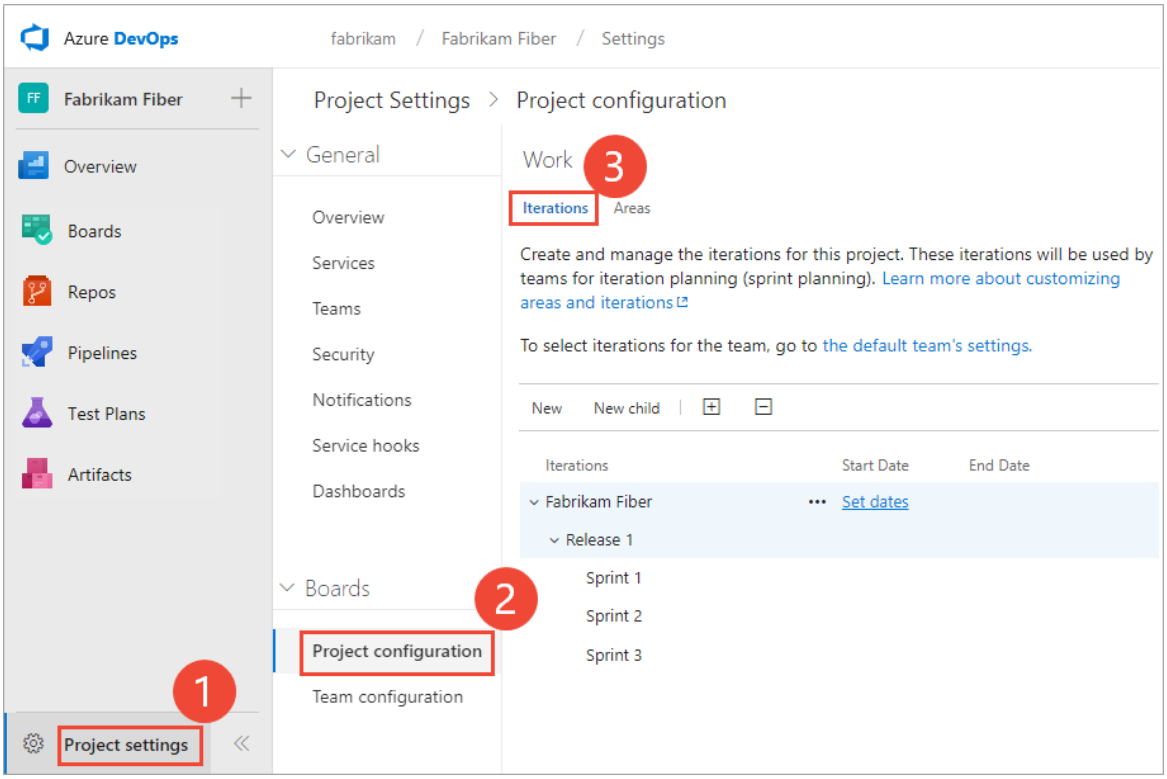
> **NOTE**
> Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

> **NOTE**
> Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

- New navigation
- Previous navigation

You define both areas and iterations for a project from the **Project Settings>Work>Project configuration**.

1. Choose (1) **Project Settings**, expand **Boards** if needed, and choose (2) **Project configuration** and then (3) **Iterations**.



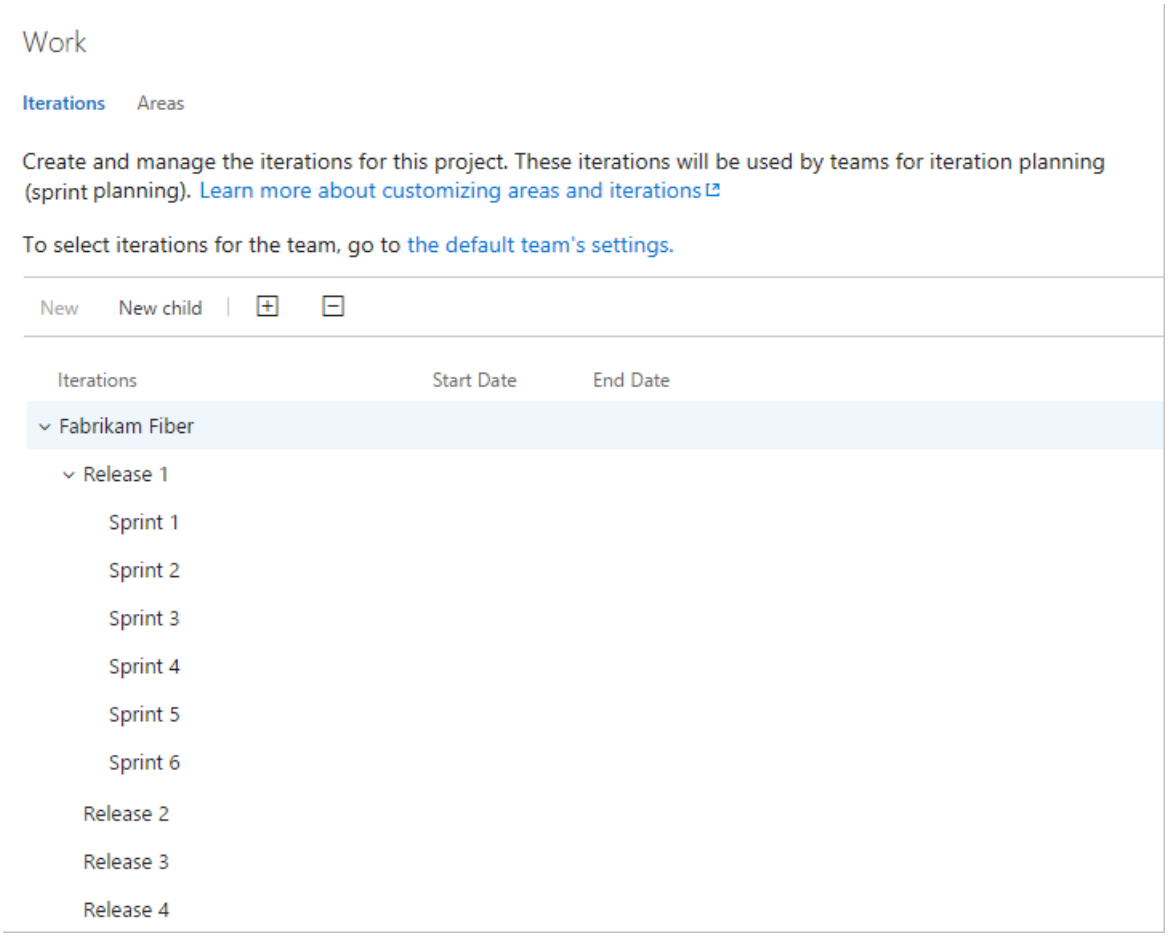
Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Add iterations and set iteration dates

From **Iterations**, you can add iterations that teams can then select for their use. You add iterations in the same way you add areas. For more information about working within a sprint cadence, see Scrum and sprint planning tools.

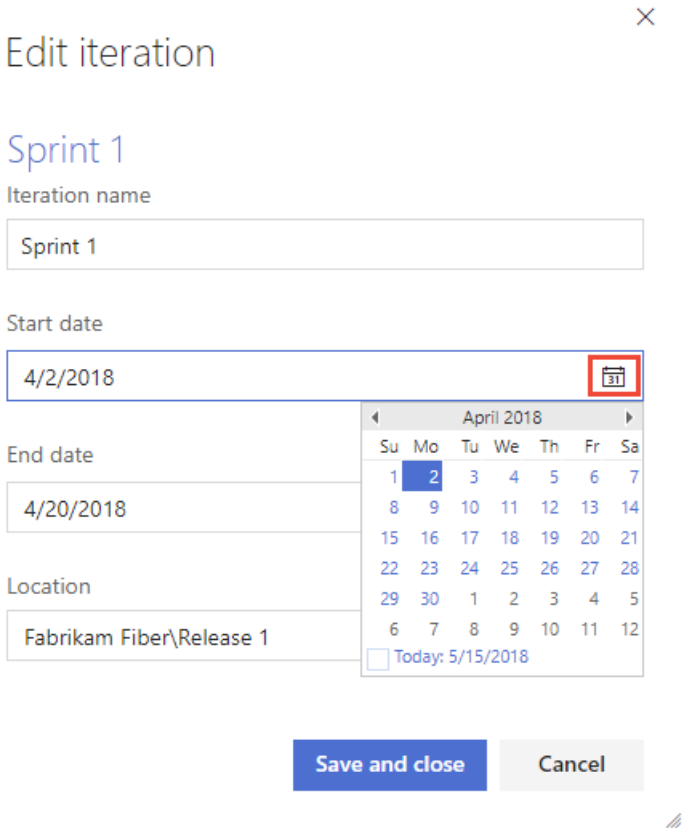
You add and modify area paths from the **Work, Iterations** page from the project admin or settings context.

For Scrum-based projects, you'll see the following set of sprints.

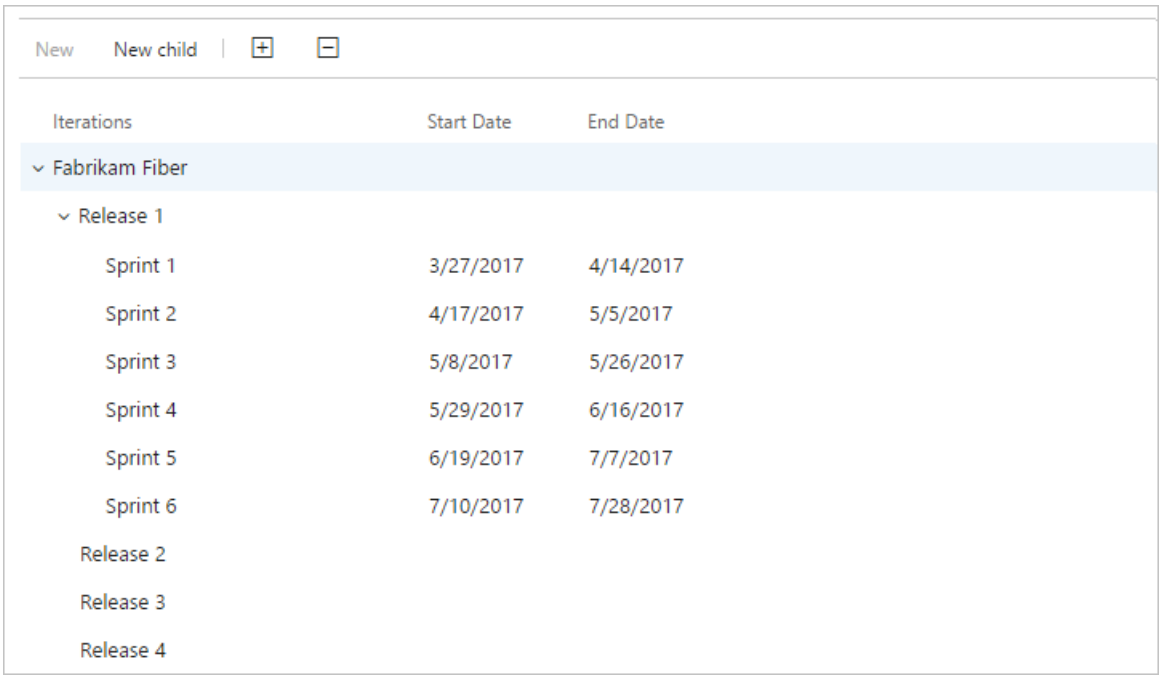


1. To schedule the start and end dates for each sprint your teams will use, Highlight the sprint and choose **Set dates**. Or, you can open the ··· context menu for the iteration path and choose **Edit**.

   Choose the calendar icon to choose new dates.



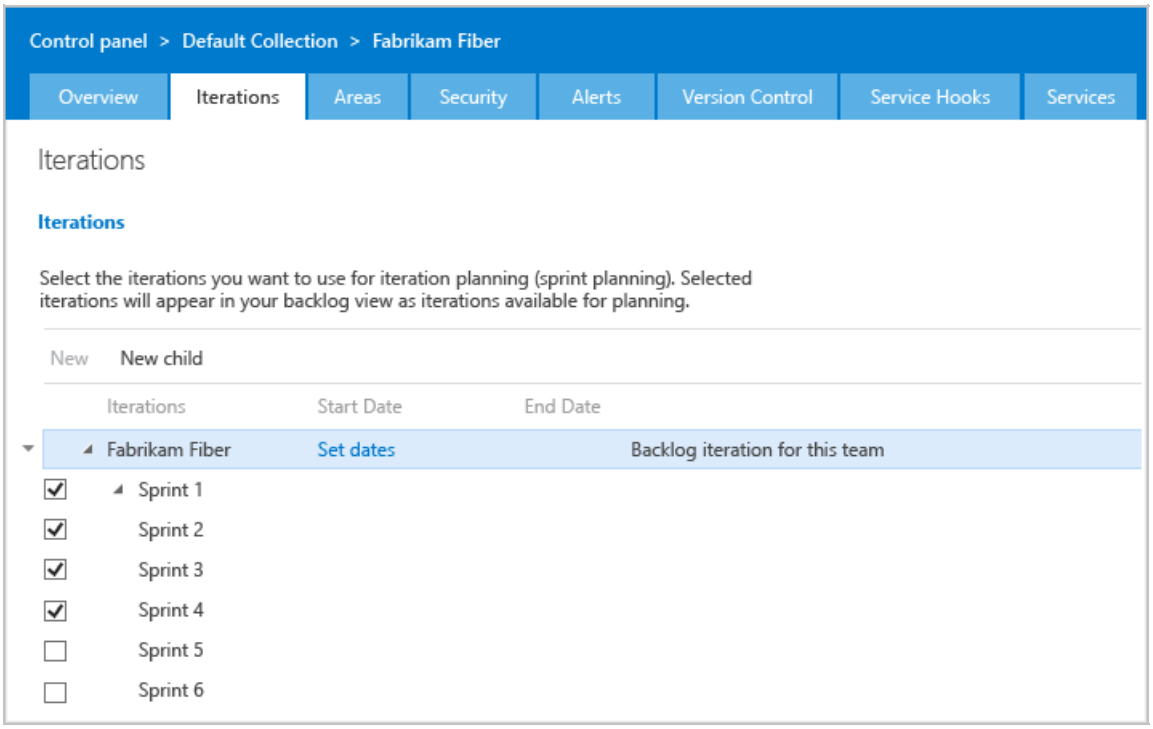
2. When you're finished, you'll have a set of sprints scheduled - like this:



Your next step is to choose the sprints each team will use.

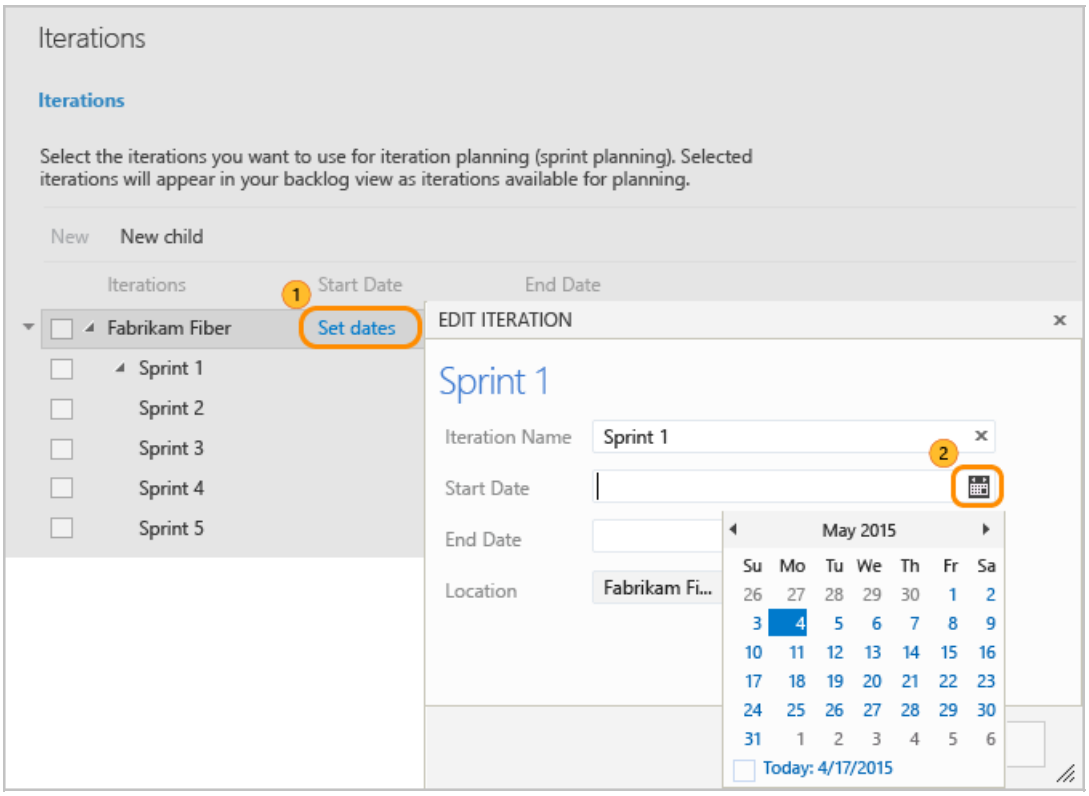
1. Open the **Iterations** tab for the project context.

   For Scrum-based projects, you'll see these set of sprints.



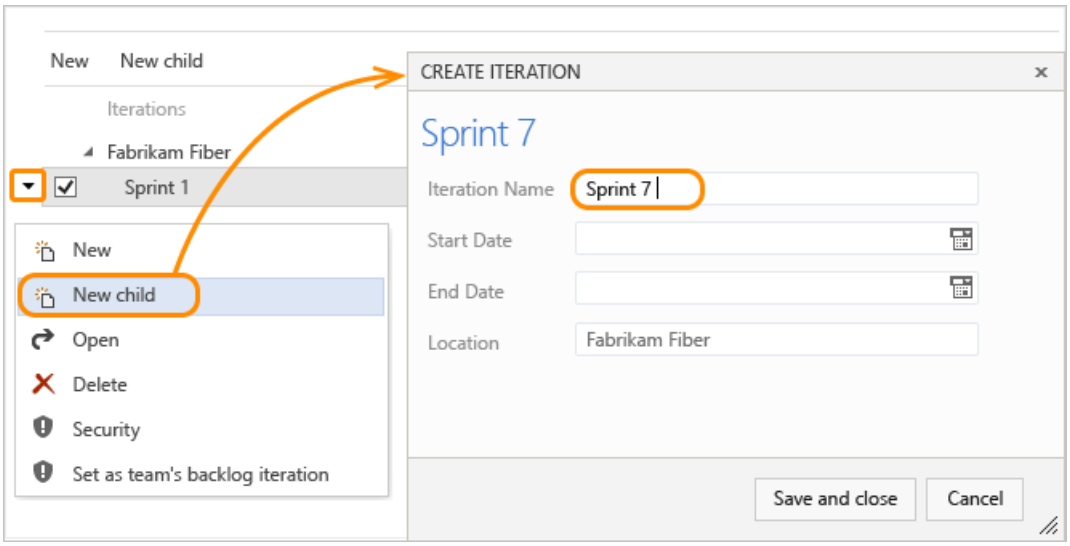
   You can change the name, location within the tree hierarchy, or set dates for any sprint. Simply open it (double-click or press Enter key) and specify the info you want.

2. Schedule the start and end dates for those sprints you plan to use.



After you set the start and end dates for one iteration, the calendar tool automatically attempts to set the next set of dates, based on the same iteration length you specified for the first. For example, if you set a three week sprint for Sprint 1, then when you select the start date for Sprint 2, the calendar tool automatically determines the start and end dates based on the next three weeks. You can accept or change these dates.

3. To add another sprint, select **New child** and name it what you want. Here, we call it Sprint 7.



Your next step is to select the sprints each team will use.

Open team settings

You set team defaults from team settings. If you're not a team administrator,get added as one. Only team or project administrators can change team settings.

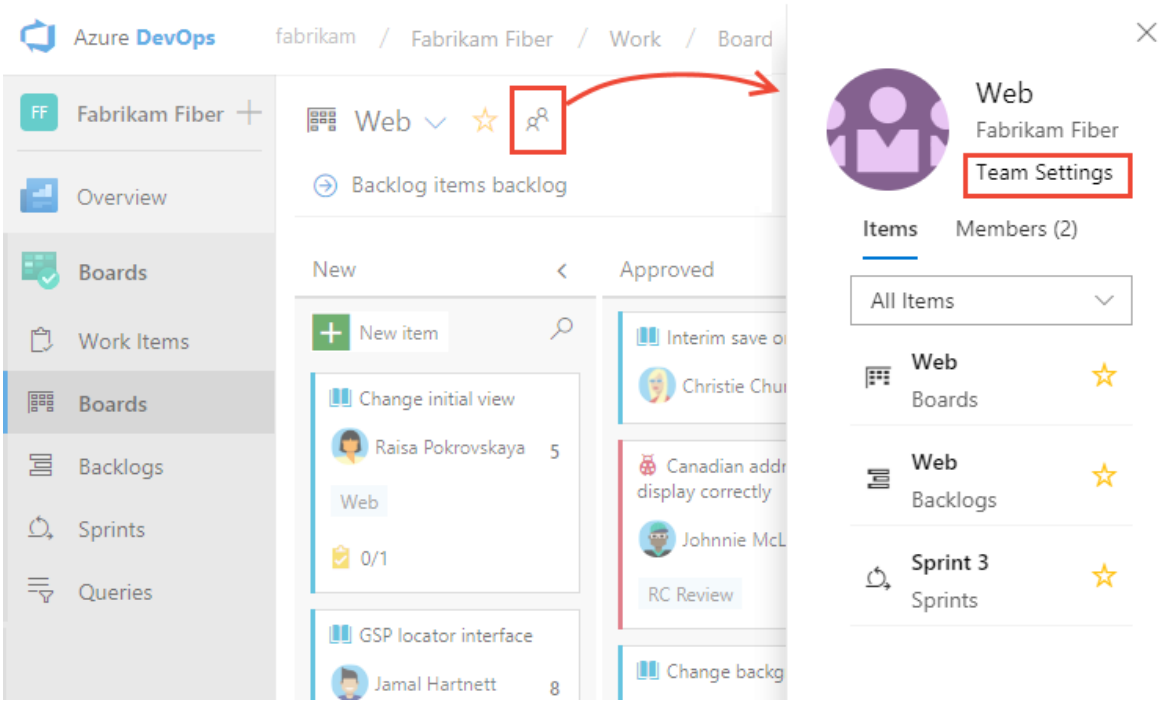
From a web browser, open the web portal administrative context for your team.

- New navigation
- Previous navigation

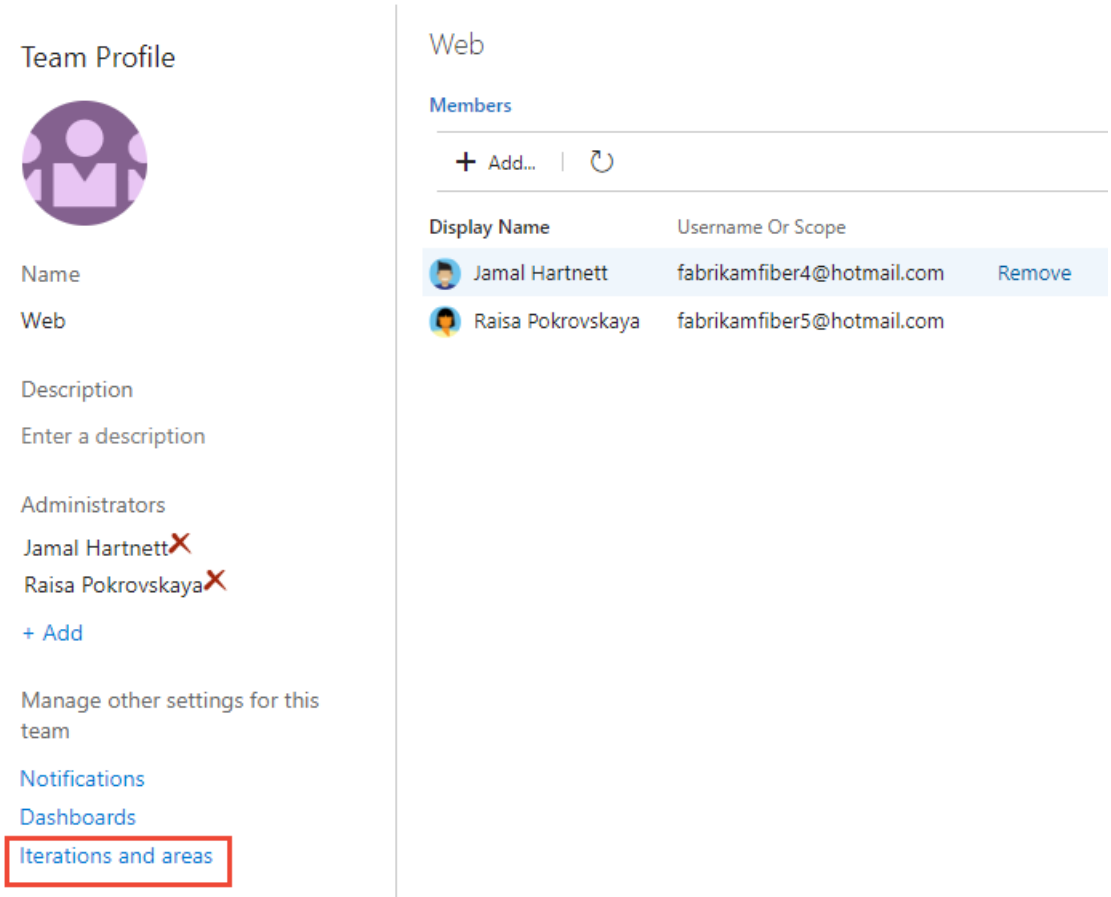
You define both areas and iterations from **Project Settings>Boards>Team configuration**. You can quickly navigate to it from a team work tracking backlog, board, or dashboard.

1. Open a backlog or board for a team and choose the team profile icon. Then choose **Team Settings**.

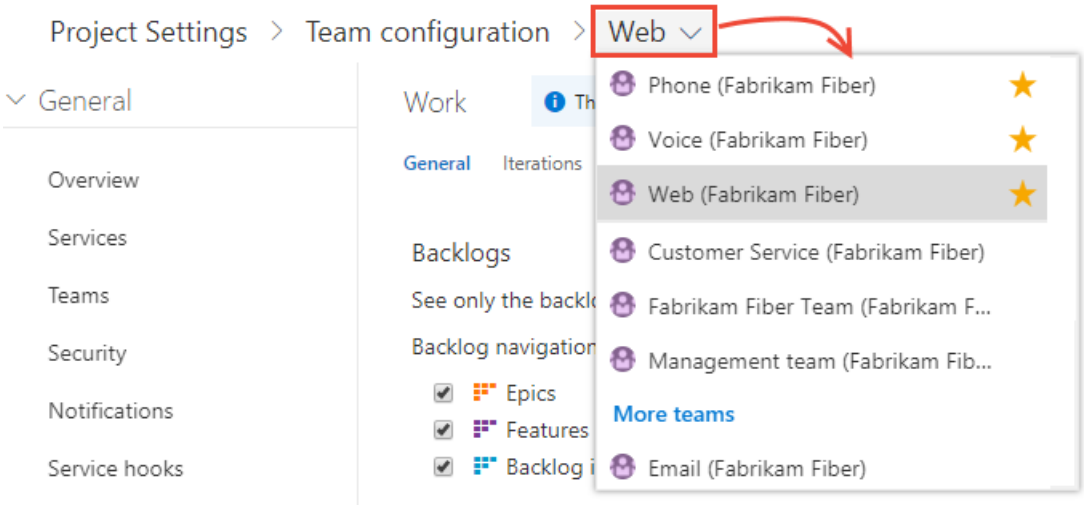
   Here we open the Board for the Web team and from there the team profile.



2. Choose **Iterations and areas**.



3. If you need to switch the team context, use the team selector within the breadcrumbs.



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

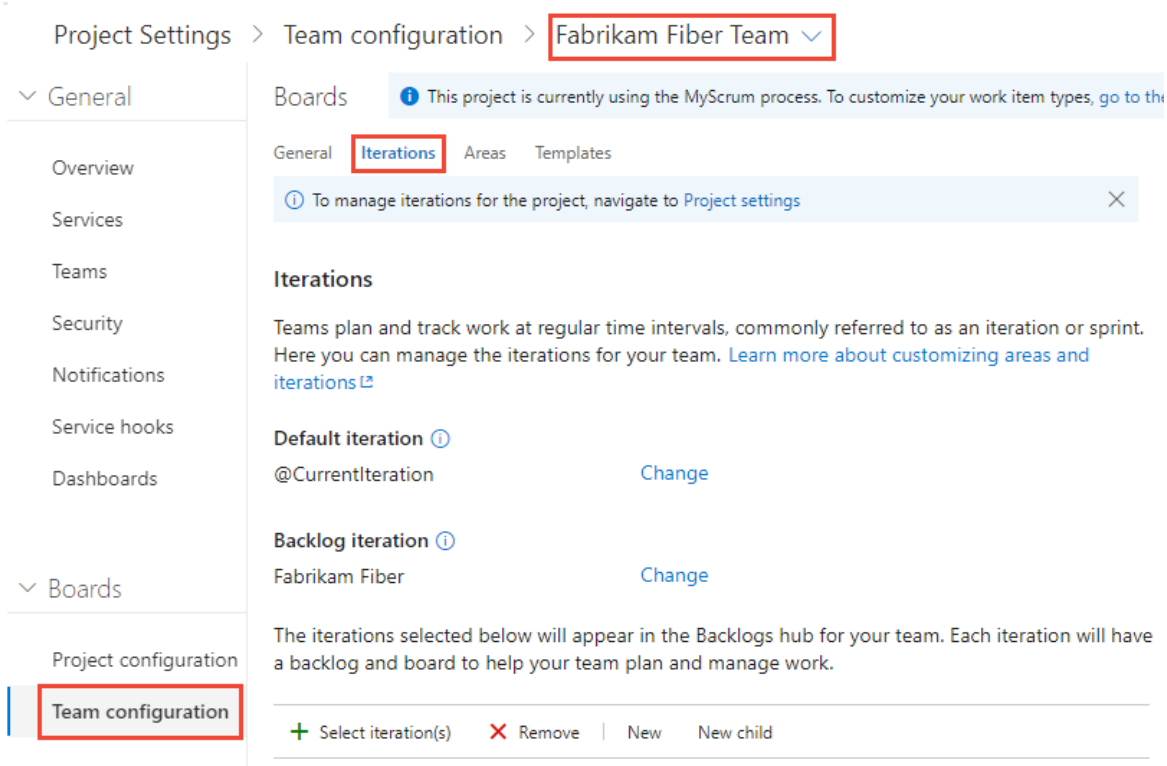
Select team sprints and default iteration path

You define sprints for the project and then select them to be active for each team. You assign the default iteration to use when creating new work items.

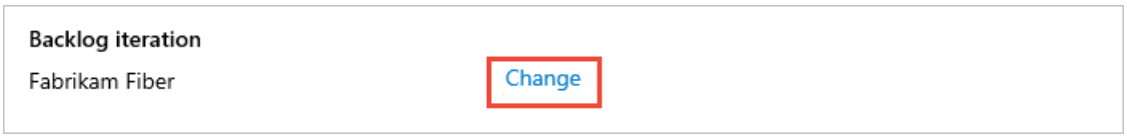
- New navigation
- Previous navigation

1. Open **Project settings>Boards>Team Configuration>Iterations** for a team.

   Here, we navigate to the Fabrikam Fiber Team.



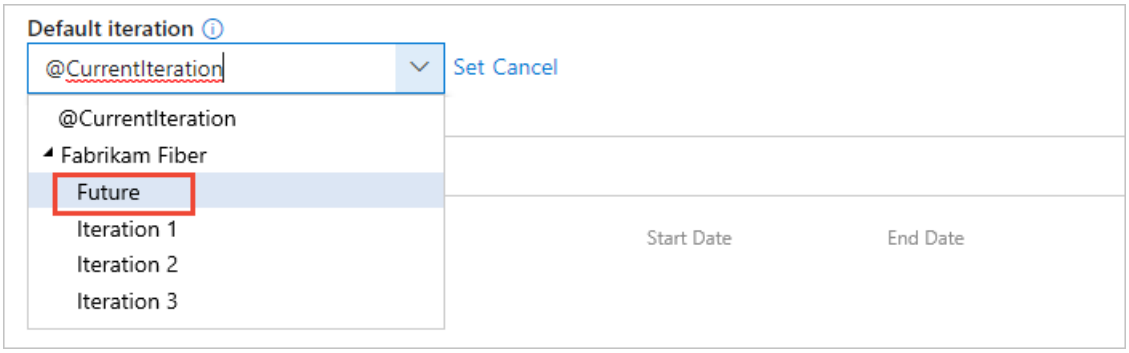
2. **Backlog iteration**. Only work items assigned to an iteration equal to or under this backlog iteration appear in the team's backlogs and boards.



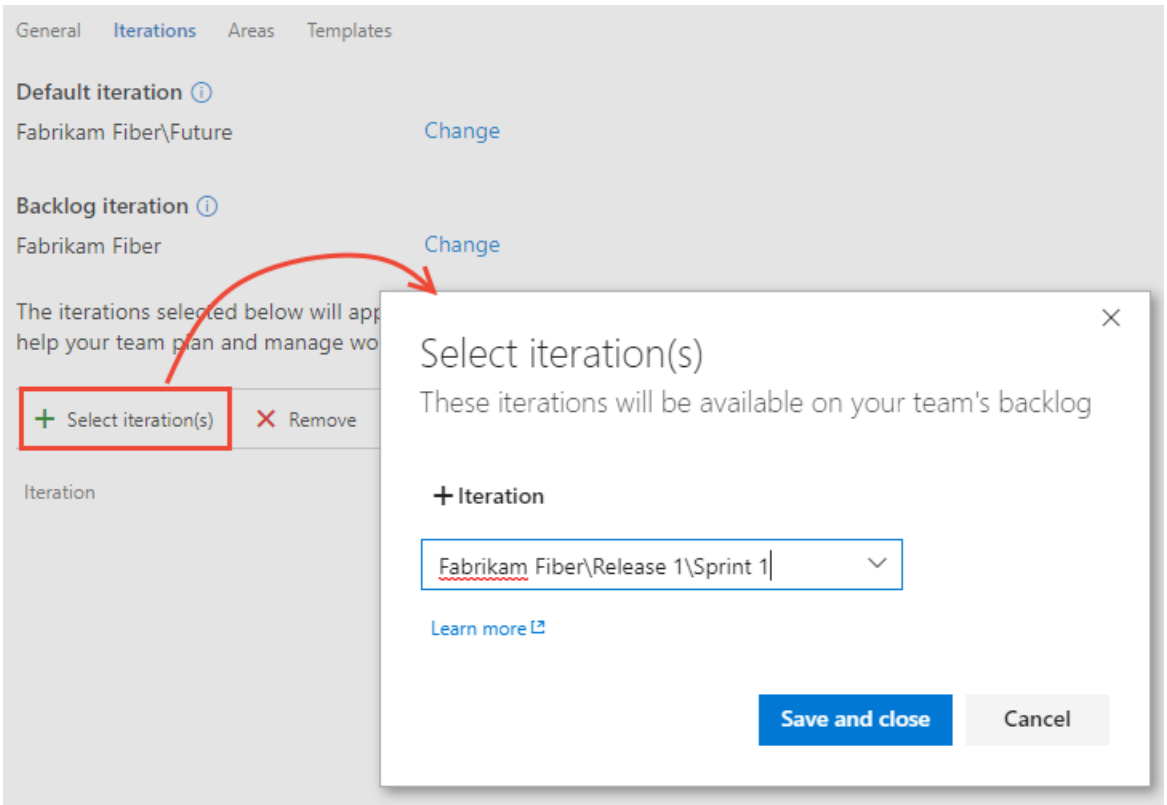
Also, all work items added through a team's backlog or board are assigned the backlog iteration.

3. **Default iteration**. The default iteration defines the iteration used when a work item is created from the team dashboard (new work item widget) and queries page. You can use an explicit value or use **@CurrentIteration** to assign new work items to the team's current iteration. This is the same macro used in queries to list work items assigned to the currently active iteration assigned to the team.

   For example, you might want all new work items to be added to a future iteration path which you use to triage and assign to specific sprints at periodic intervals.



4. **Active sprints**. Add an iteration for each sprint backlog you want active for the team. Add each sprint, one by one, by selecting it from the menu.



When you're done, you should see a list of sprints, similar to the following.

If you don't see the sprints you need, or the dates aren't set, you can add or edit iterations for the project, provided you have the required permissions. To learn more, see Define iteration paths (aka sprints).

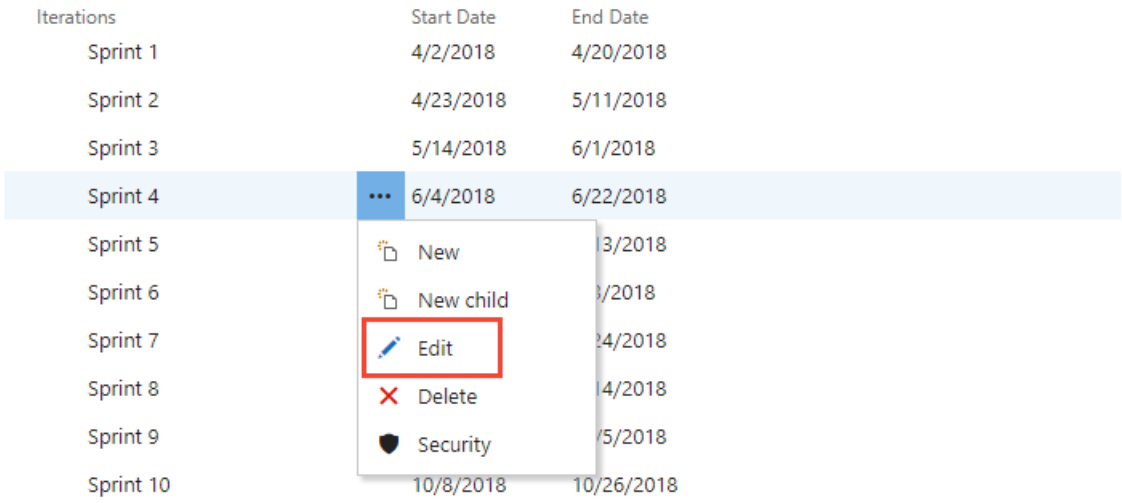
5. To see the newly activated sprint backlogs, refresh your team's product backlog page.

Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

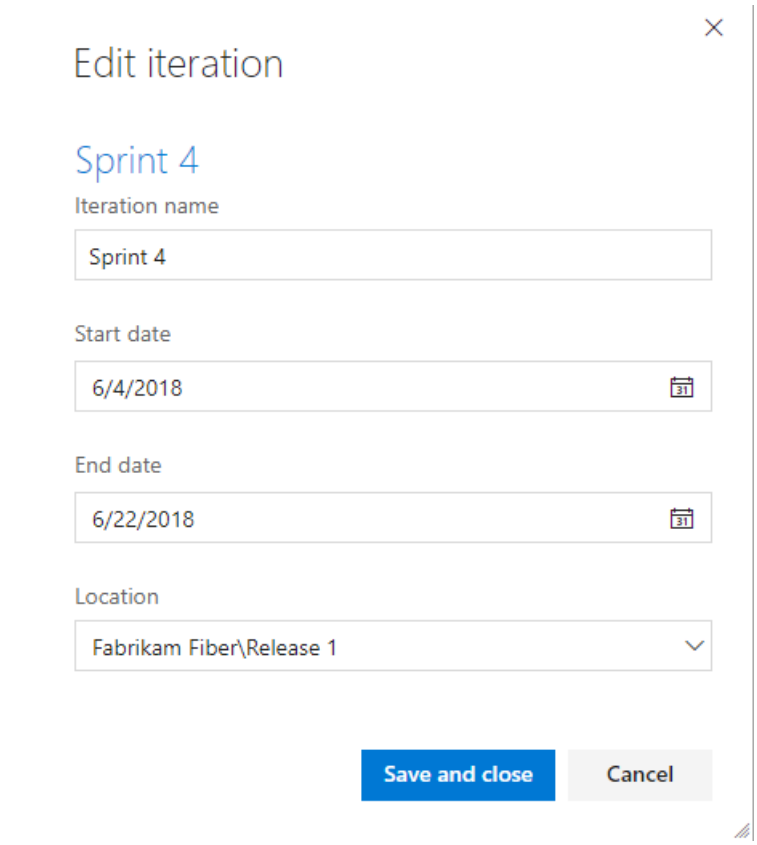
Rename, move, or delete an iteration

When you rename an iteration, or move the node within the tree hierarchy, the system will automatically update the work items and queries that reference the existing path or paths.

1. To rename an iteration path, choose the ··· actions icon for the node, and select **Edit**.



2. In the dialog that opens, enter the new name.



3. To move the node within the hierarchy, change the Location field.
4. To delete a node, choose the **Delete** option from the actions menu.

> **NOTE**
> When you delete an iteration node, the system automatically updates the existing work items with the node that you enter at the deletion prompt.

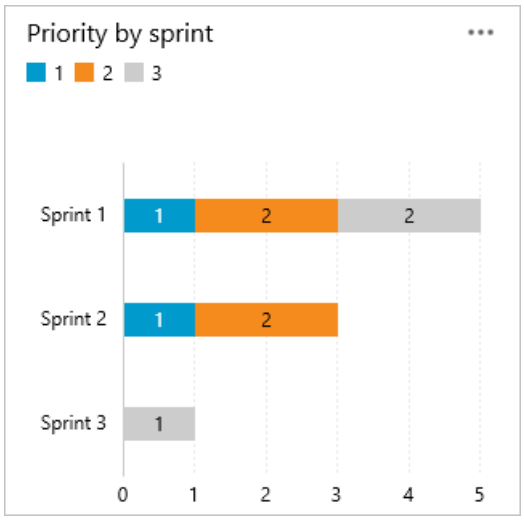
Archive iteration paths

After a while, you may want to archive iteration paths that were used for sprints that are a year or more out of date. You can do that by moving the iteration path under a node that you label "Archive". All work items will be updated with the moved iteration path. Also, teams can de-select those sprints that have past. All data is maintained in the data store with the new iteration path assignments.

Prior to archiving the iterations, consider if you have captured all the reports that you may want.

Chart progress by iteration

You can quickly generate queries to view the progress for those areas. As an example, you can visualize progress of work items assigned to sprints as shown in the following stacked bar chart.



Q & A

Q: Do I have to assign iteration paths to a team?

A: If your team doesn't use sprints to plan and track work, then no. You can leave the defaults assigned to the team as they are. You can then use the product and portfolio backlogs and boards, however you won't be able to gain much use of sprint planning tools.

Related articles

As you can see, iterations play a major role in supporting Agile tools and managing work items. You can learn more about working with these fields from these articles:

- About areas and iterations
- Add another team
- Configure team settings and add team administrators
- Assign backlog items to a sprint
- Agile tools that rely on areas or iterations
- Query by date or current iteration
- Query by area or iteration path
- Set permissions and access for work tracking

1. Assign backlog items to a sprint

1/31/2019 • 9 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

The first step in planning your sprint is to assign work from your backlog to a sprint. Your team builds the sprint backlog during the sprint planning meeting, typically held on the first day of the sprint. Each sprint corresponds to a time-boxed interval which supports your team's ability to work using Agile processes and tools. During the planning meeting, your product owner works with your team to identify those stories or backlog items to complete in the sprint.

> **NOTE**
> Your project comes with several predefined sprints. You can quickly add more sprints from your backlog as needed. Or, change the dates of the predefined sprints. To learn more about sprints, also referred to as iterations, see About areas and iterations.

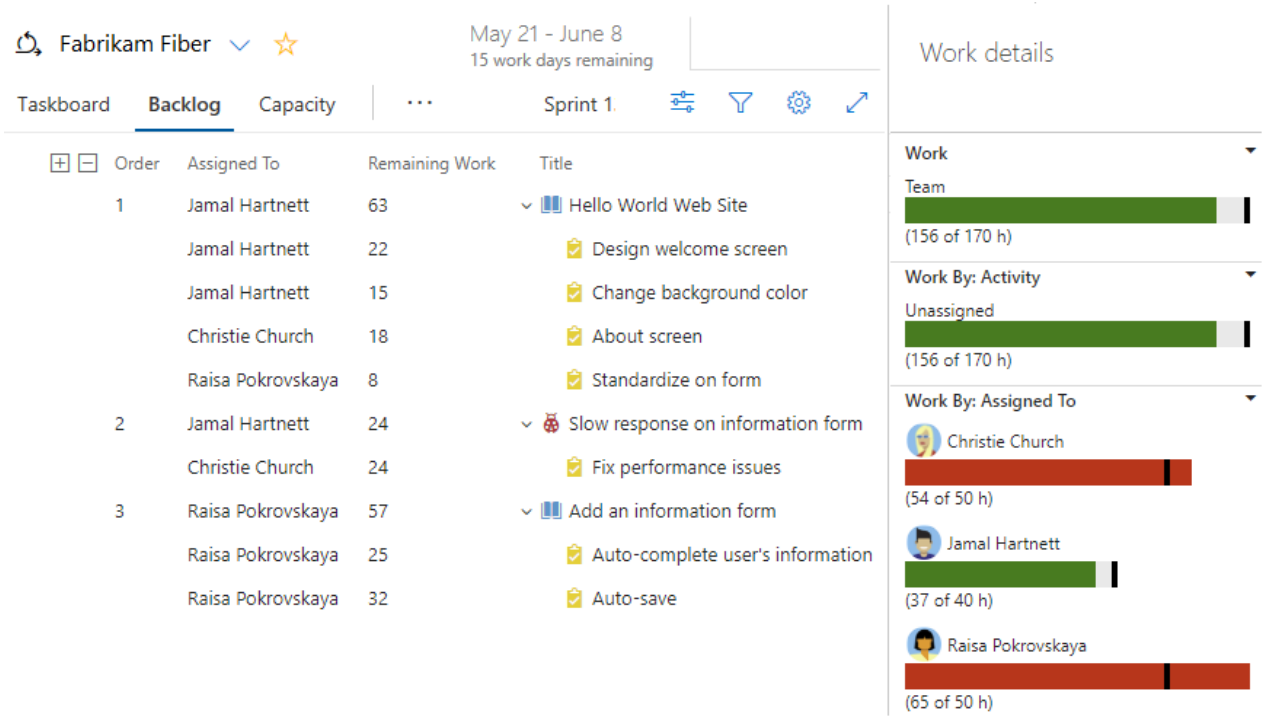
Here's an example of a sprint plan that consists of backlog items and the tasks required to complete each item. By setting team capacity and estimating tasks, the team can see when the team or a team member is at, under, or over capacity.

> **NOTE**
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

> **NOTE**
> Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

> **NOTE**
> Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

- New navigation
- Previous navigation



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

In this article you'll learn how to:

- Open your product backlog
- Assign backlog items to a sprint
- Use multi-select to bulk update work items

Planning meetings typically consist of two parts. In the first part, the team and product owner identify the backlog items that the team feels it can commit to completing in the sprint, based on experience with previous sprints. These items get added to the sprint backlog. In the second part, your team determines how it will develop and test each item. They then define and estimate the tasks required to complete each item. Finally, your team commits to implementing some or all of the items based on these estimates.

> **NOTE**
> Sprint planning doesn't need to be challenging. It can be fun and a time for the entire Scrum team to build camaraderie by working together to answer the question of "What can we commit to?" For examples and strategies to keep your sprint planning focused and effective, check out the What is Scrum?.
>
> When you've completed your sprint plan, your sprint backlog should contain all the information your team needs to successfully complete work within the time allotted without having to rush at the end.

Prerequisites

- You must connect to a project. If you don't have a project yet, create one.
- You must be added to a project as a member of the **Contributors** or **Project Administrators** security group. To get added, Add users to a project or team.
- To add or modify work items, you must be granted **Stakeholder** access or higher. For details, see About access levels.
- To view or modify work items, you must have your **View work items in this node** and **Edit work items in this node** permissions set to **Allow**. By default, the **Contributors** group has this permission set. To learn more, see Set permissions and access for work tracking.

> **NOTE**
>
> Users with **Stakeholder** access for a public project have full access to backlog and board features just like users with **Basic** access. For details, see About access levels.

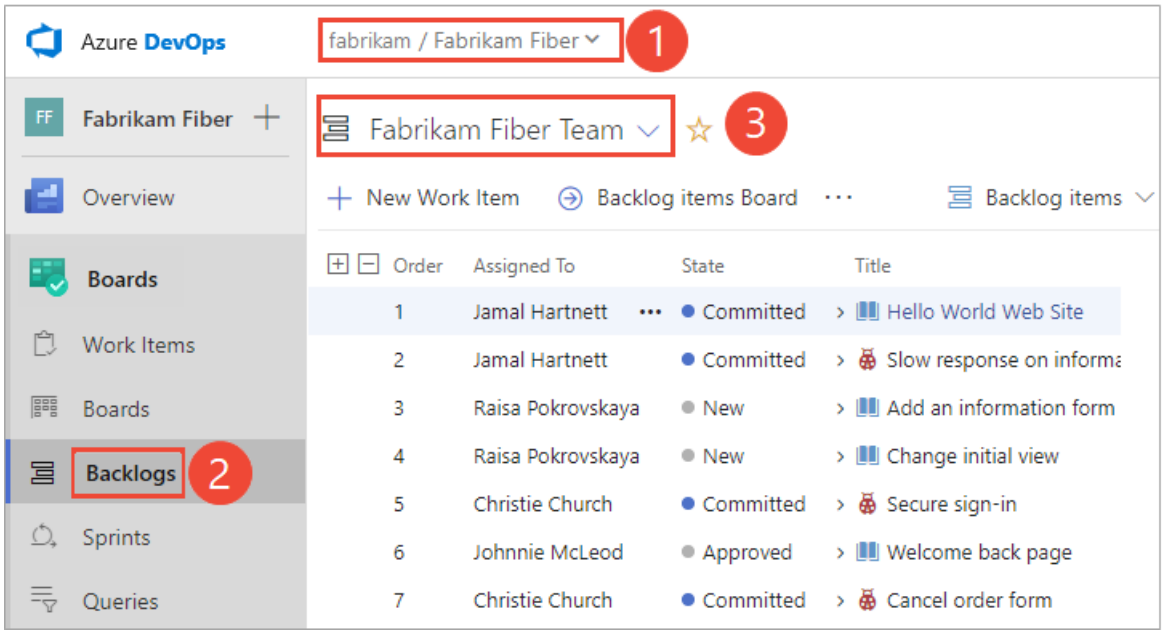
- You must connect to a project. If you don't have a project yet, create one.
- You must be added to a project as a member of the **Contributors** or **Project Administrators** security group. To get added, Add users to a project or team.
- To add or modify work items, you must be granted **Stakeholder** access or higher. For details, see About access levels.
- To view or modify work items, you must have your **View work items in this node** and **Edit work items in this node** permissions set to **Allow**. By default, the **Contributors** group has this permission set. To learn more, see Set permissions and access for work tracking.

Open your team's product backlog

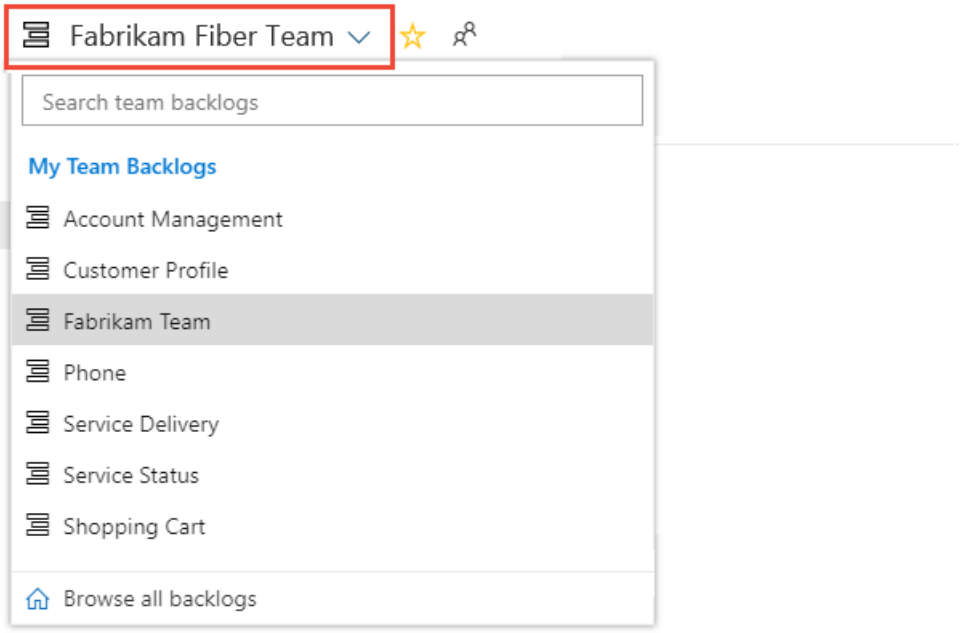
> **NOTE**
>
> Your sprint backlogs are one of three classes of backlogs available to you. For an overview of the features supported on each backlog and the two types of boards, see Backlogs, boards, and plans.
>
> For a beginner's guide to planning and tracking work, see Get started with Agile tools.

- New navigation
- Previous navigation

1. From your web browser, open your product backlog. (1) Check that you have selected the right project, (2) choose **Boards>Backlogs**, and then (3) select the correct team from the team selector menu.

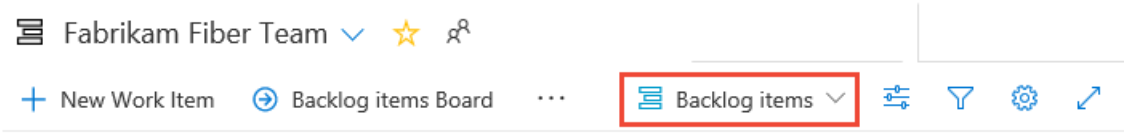


To choose another team, open the selector and select a different team or choose the **Browse all team backlogs** option. Or, you can enter a keyword in the search box to filter the list of team backlogs for the project.

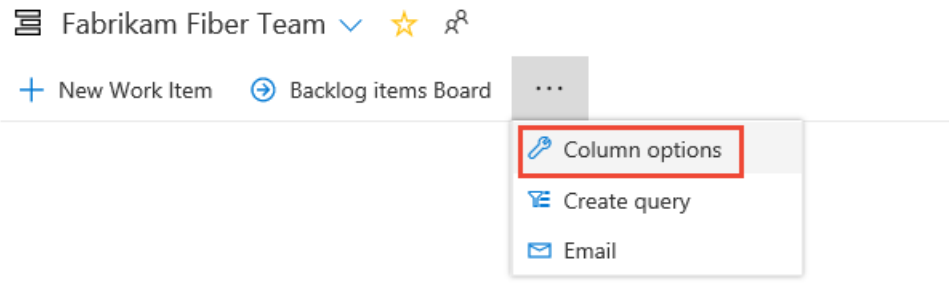


> **TIP**
> Choose the ☆ star icon to favorite a team backlog. Favorited artifacts (★ favorited icon) appear at the top of the team selector list.

2. Check that you have selected **Backlog items** (for Scrum), **Stories** (for Agile), or **Requirements** (for CMMI) as the backlog level.



3. (Optional) To choose which columns should display and in what order, choose the ··· actions icon and select **Column options**. You may want to add the Iteration Path to the set of columns that appear on your backlog. To learn more, see Change column options.



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Assign work from your backlog to a sprint

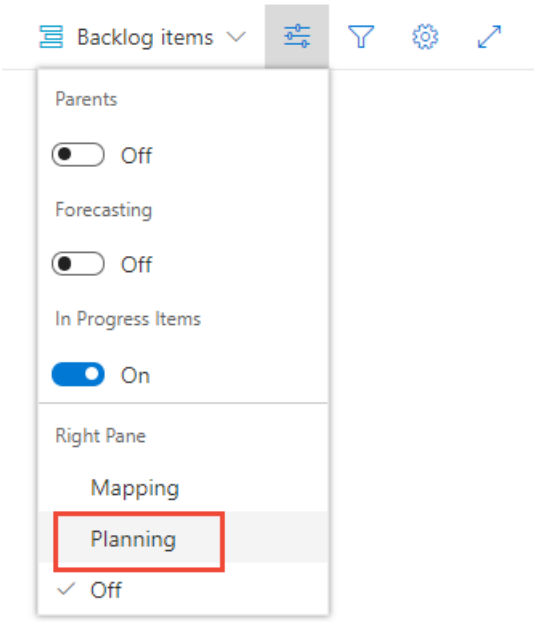
Before you start planning your sprint, you'll want to have created, prioritized, and estimated your backlog.

Also, you'll want to have set the start and end dates for your sprint.

You can quickly assign work items to a sprint through drag-and-drop from the product backlog to the sprint.

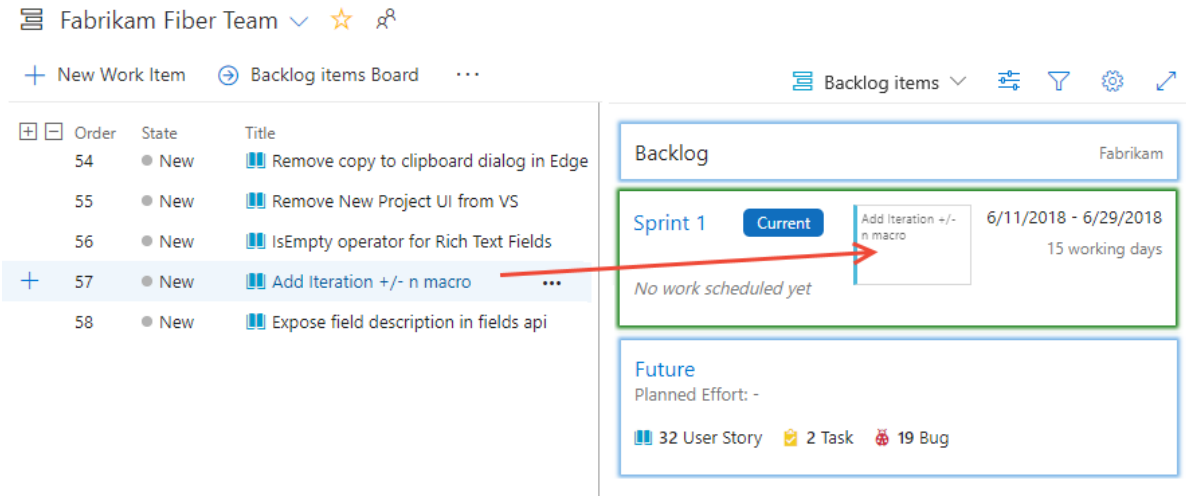
- New navigation
- Previous navigation

1. The next step is to open the Planning pane. Choose the view options icon and select **Planning**. While you're at it, make sure **Parents** and **Forecasting** are Off. You can choose to set **In Progress items** to On or Off.



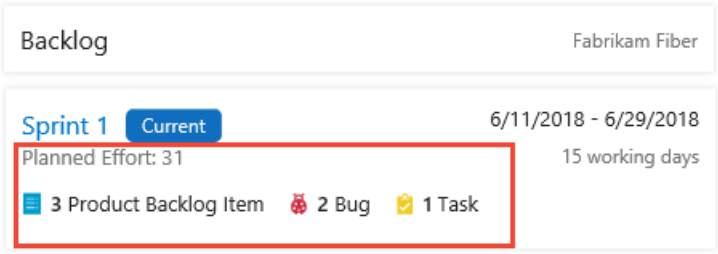
The set of sprints selected for your team appears. If you don't see any sprints listed, you can add sprints or select existing sprints for your team's use. To learn how, see Define sprints.

2. You can drag and drop items from the **Backlog** onto a sprint.



3. Select one or more items from the backlog and drag them to the sprint you are planning. This action will update the Iteration Path of the backlog items and any of its child tasks to the sprint you selected.

4. Check the level of effort displayed in the sprint window. As you assign backlog items to a sprint, the sprint window will update with a running tally of the number of backlog items and tasks, as well as the **Planned Effort**.



Planned Effort provides a sum of all *Story Points* or *Effort* defined for backlog items assigned to the sprint. This represents your initial guess at what your team will be able to complete in the sprint. Next, you'll define tasks, estimate that work, and use your team's capacity to make sure it fits in the sprint.

Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Use multi-select to bulk modify items

Multi-select of work items on the product and sprint backlogs works in the same way as multi-select works within query results.

With multi-select, you can perform several actions on several work items at once, such as:

- Move to a sprint
- Change the backlog priority
- Assign to a team member
- Change one or more field values
- Add links
- Map items or change the parent an item is linked to

Multi-select of backlog work items requires TFS 2015.1 or later version.

To select several items in a sequence, hold down the shift key. To select several non-sequential items, use the Ctrl key. Then, you can either drag the selected items to a new position within the backlog, to a different sprint, or select an option from the context (▾) or action (···) menu of one of the items.

To learn more, see Bulk modify work items.

Try this next

Now that you've defined your sprint plan, your team's ready to begin work on the sprint tasks.

2. Add tasks

Related articles

If you need to add or rename the sprints your team uses, see Define iteration paths (aka sprints) and configure team iterations.

1/31/2019 • 8 minutes to read • Edit Online

2. Add tasks to backlog items

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

You add tasks to backlog items when you want to track the work required to implement them and to estimate the work assigned to individual team members and the team. The capacity tool tells you how much work your team can commit to. However, to compare capacity with actually planned work, you need to define and estimate tasks for each backlog item.

In this article you'll learn how to:

- Select a sprint backlog for a team
- Add tasks to backlog items from the sprint backlog or taskboard
- Estimate work, set *Remaining Work*

Add as many tasks as needed to capture the work required to complete each item. Tasks can represent different work to be performed - such as design, code, test, content, sign off. Usually, each team member adds their own tasks and sets estimates for the work. However, a development lead could define the initial tasks for a story or requirement.

Prerequisites

- You must connect to a project. If you don't have a project yet, create one.
- You must be added to a project as a member of the **Contributors** or **Project Administrators** security group. To get added, Add users to a project or team.
- To add or modify work items, you must be granted **Stakeholder** access or higher. For details, see About access levels.
- To view or modify work items, you must have your **View work items in this node** and **Edit work items in this node** permissions set to **Allow**. By default, the **Contributors** group has this permission set. To learn more, see Set permissions and access for work tracking.

> **NOTE**
> Users with **Stakeholder** access for a public project have full access to backlog and board features just like users with **Basic** access. For details, see About access levels.

- You must connect to a project. If you don't have a project yet, create one.
- You must be added to a project as a member of the **Contributors** or **Project Administrators** security group. To get added, Add users to a project or team.
- To add or modify work items, you must be granted **Stakeholder** access or higher. For details, see About access levels.
- To view or modify work items, you must have your **View work items in this node** and **Edit work items in this node** permissions set to **Allow**. By default, the **Contributors** group has this permission set. To learn more, see Set permissions and access for work tracking.

Open a Sprint backlog for a team

NOTE

Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

NOTE

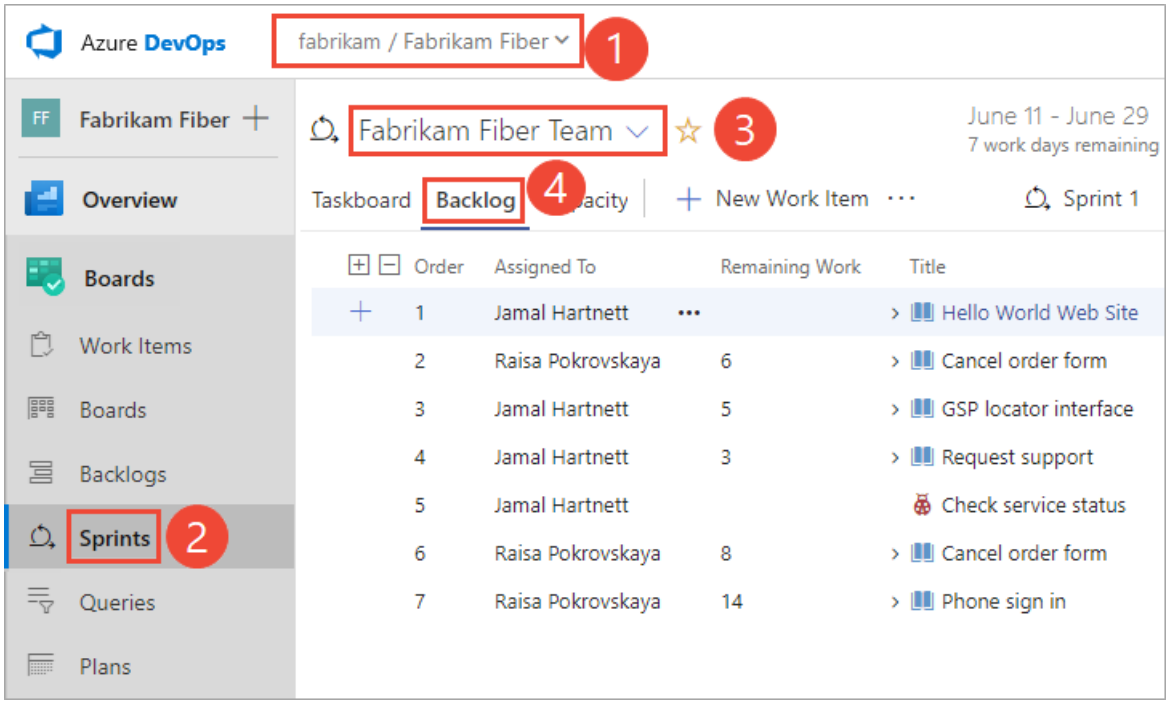
Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

NOTE

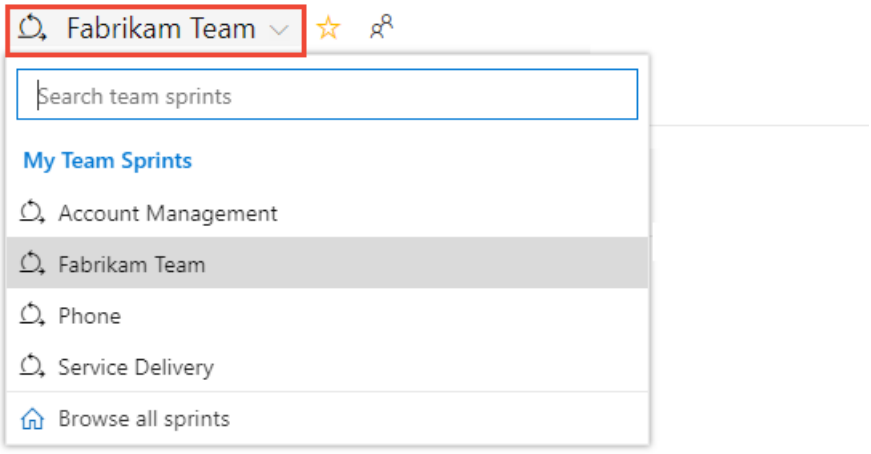
Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

- New navigation
- Previous navigation

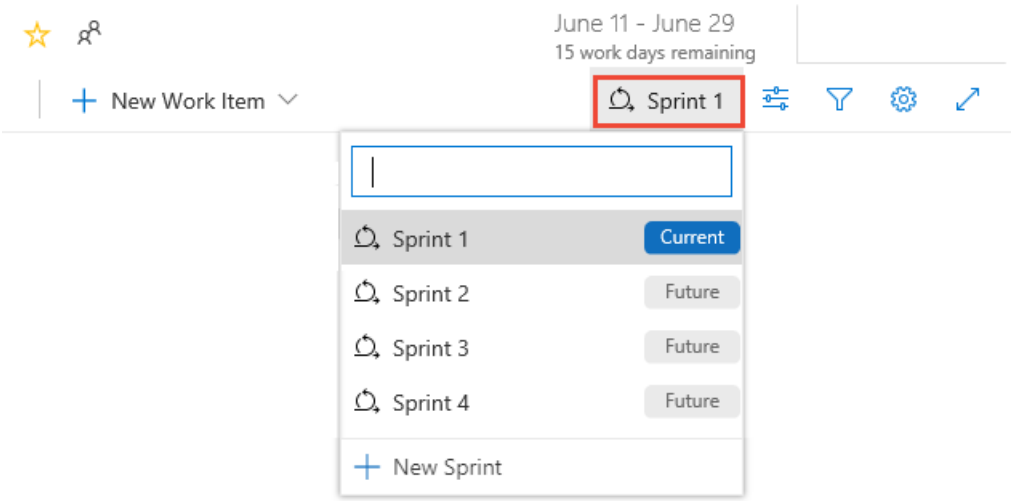
1. From your web browser, open your team's sprint backlog. (1) Check that you have selected the right project, (2) choose **Boards>Sprints**, (3) select the correct team from the team selector menu, and lastly (4), choose **Backlog**.



To choose another team, open the selector and select a different team or choose the **Browse all sprints** option. Or, you can enter a keyword in the search box to filter the list of team backlogs for the project.



2. To choose a different sprint than the one shown, open the sprint selector and choose the sprint you want.



The system lists only those sprints that have been selected for the current team focus. If you don't see the sprints you want listed, then choose **New Sprint** from the menu, and then choose **Select existing iteration**. For details, see Define iteration paths (aka sprints).

Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Add tasks to backlog items

If you haven't yet assigned backlog items to your sprint, do that now. Also, you'll want to have set the start and end dates for your sprint.

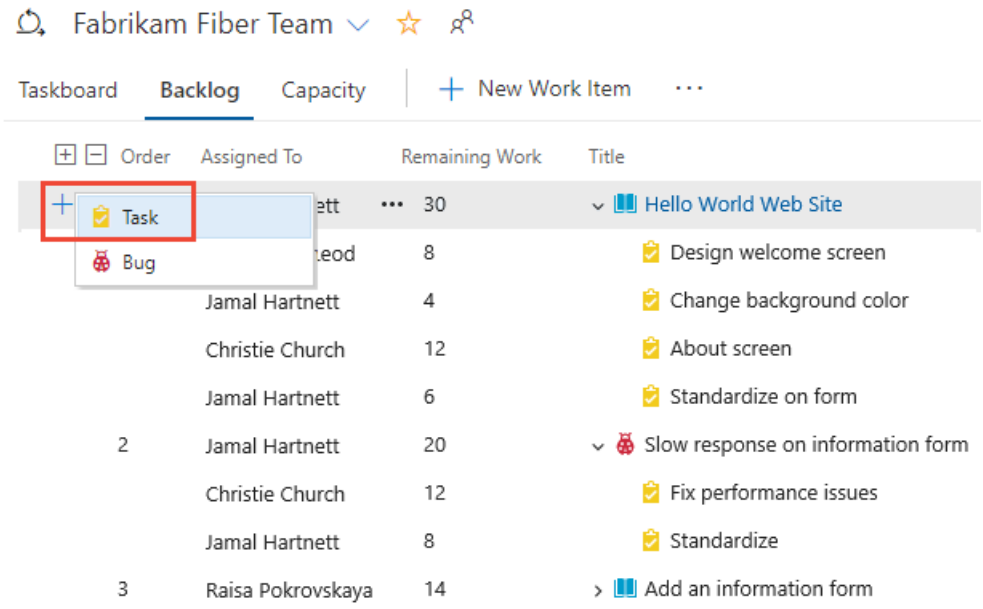
For each sprint backlog item, add a task. Adding tasks from the sprint backlog or board automatically links the task to its parent backlog item.

> **TIP**
> You can quickly add several tasks on the taskboard by simply entering a title. You can then later bulk edit items to assign them or add additional details. You can also enter *Remaining Work* onto the card by making sure you add that field to display on the taskboard.

- New navigation
- Previous navigation

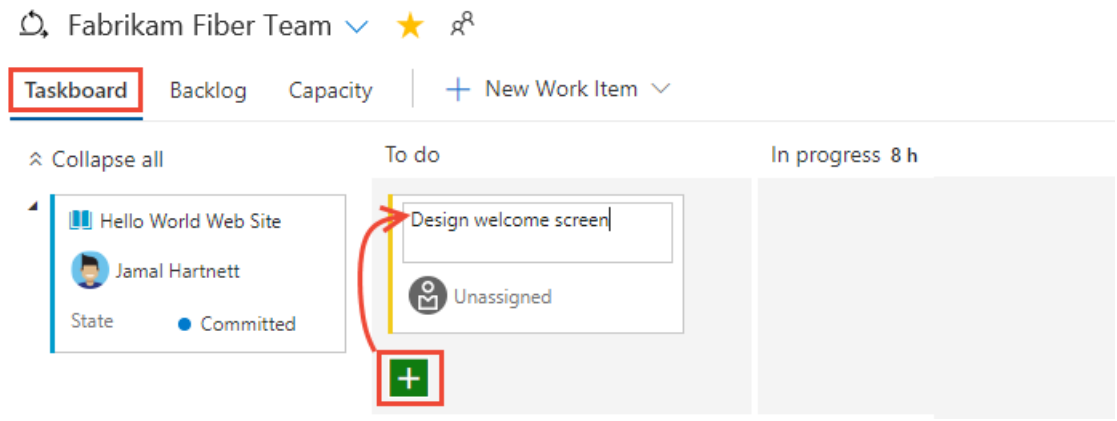
You can add tasks from the sprint **Backlog** or **Taskboard**.

From the **Backlog** view, choose the plus sign to open the work item form for a task.



Fill out the form as described in the next section.

Another option, is to open the **Taskboard**, and add tasks as cards. Simply click the plus icon, enter a title for the item, and then press Enter on your keyboard.

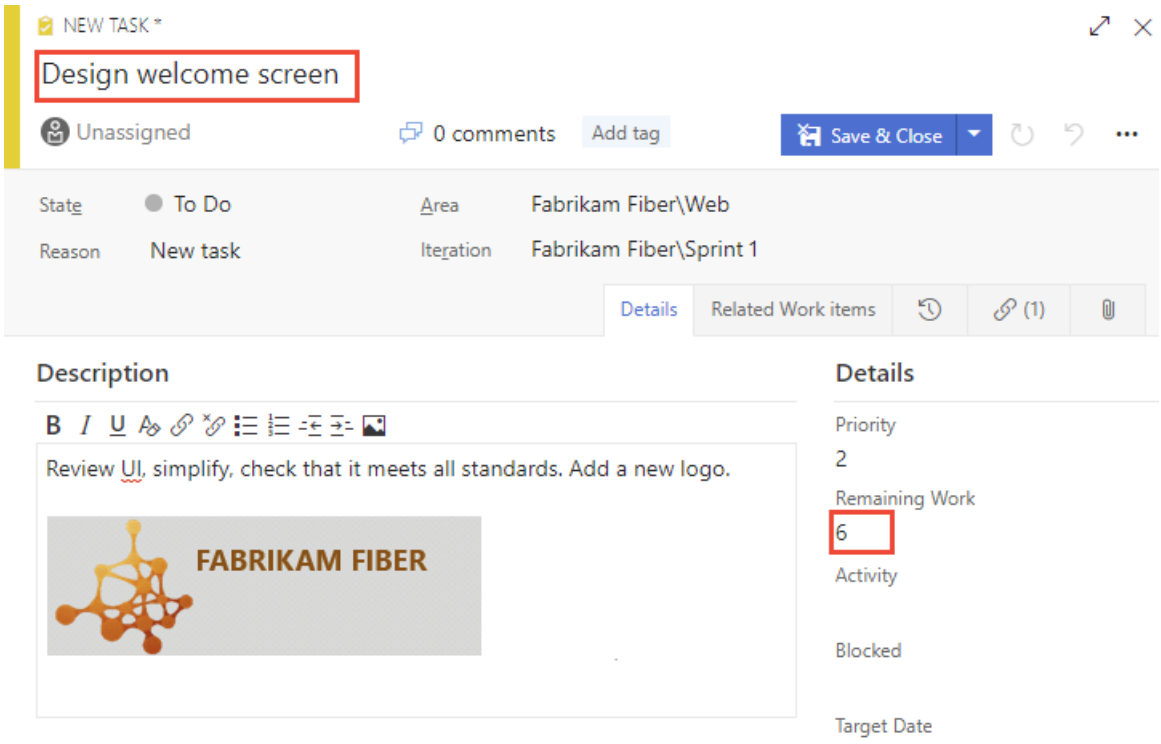


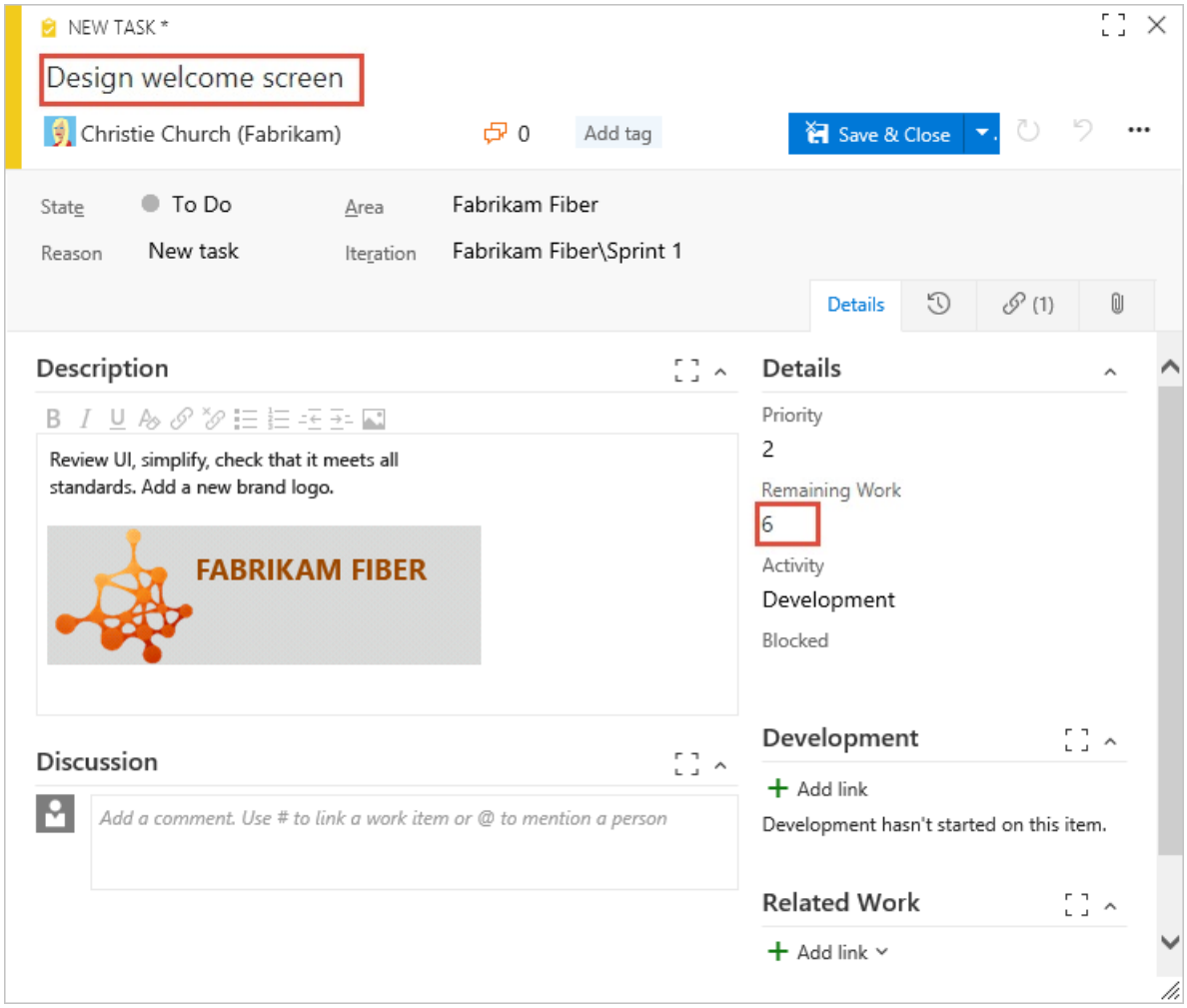
> **TIP**
> You can quickly add tasks through the Taskboard by just specifying the title of the work item. To show fields on the card, see Customize cards.

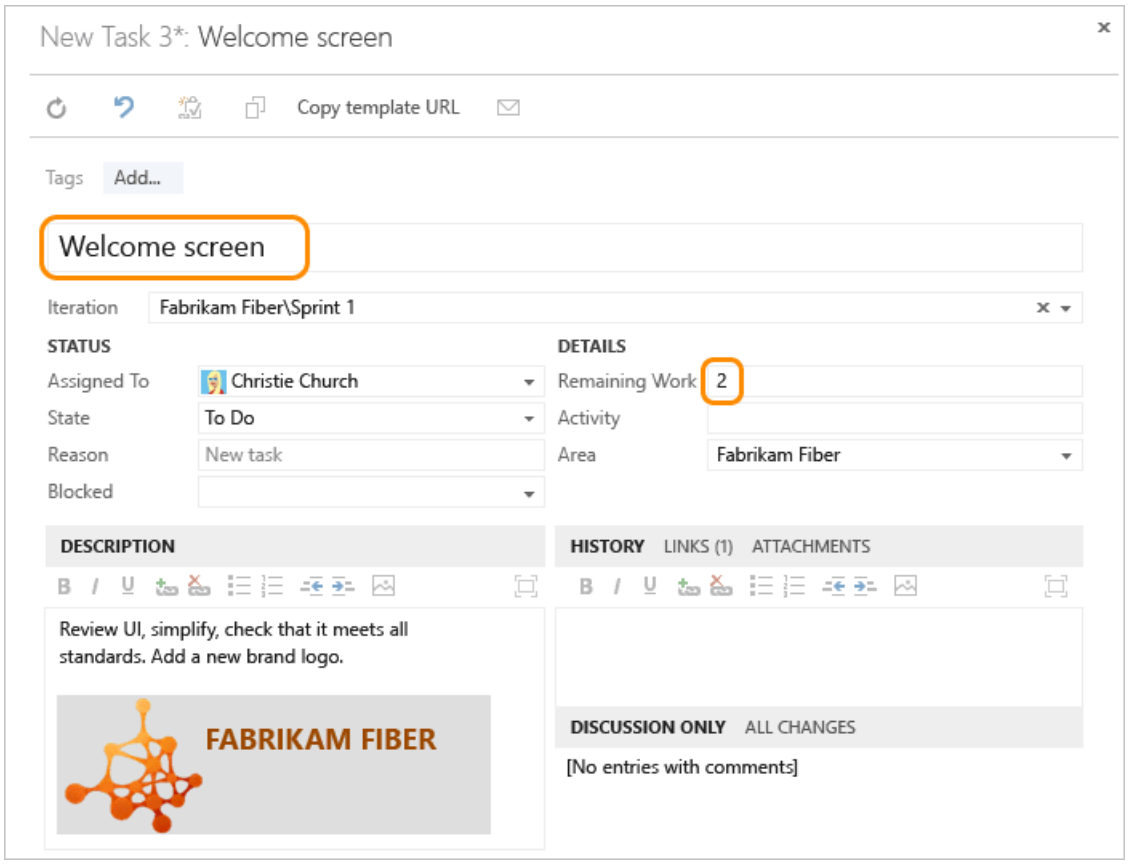
Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Fill out the task form

Name the task and enter an estimate for *Remaining Work*. Also, if you know who'll perform the work, go ahead and assign the task to that team member.


NEW TASK *
Design welcome screen
Unassigned
0 comments
Add tag
Save & Close
State
To Do
Area
Fabrikam Fiber\Web
Reason
New task
Iteration
Fabrikam Fiber\Sprint 1
Details
Related Work items
(1)
Description
Review UI, simplify, check that it meets all standards. Add a new logo.
FABRIKAM FIBER
Details
Priority
2
Remaining Work
6
Activity
Blocked
Target Date


NEW TASK *
Design welcome screen
Christie Church (Fabrikam)
0
Add tag
Save & Close
State
To Do
Area
Fabrikam Fiber
Reason
New task
Iteration
Fabrikam Fiber\Sprint 1
Details
(1)
Description
Review UI, simplify, check that it meets all standards. Add a new brand logo.
FABRIKAM FIBER
Details
Priority
2
Remaining Work
6
Activity
Development
Blocked
Development
Add link
Development hasn't started on this item.
Related Work
Add link
Discussion
Add a comment. Use # to link a work item or @ to mention a person



At the planning stage, *Remaining Work* corresponds to an estimate of how long it will take to complete the task.

A good rule of thumb is to size tasks to take no more than a day to complete. If a task is too large, the team should break it down. In some cases, you may not be able to estimate some tasks effectively until other tasks have been completed. Create the task now, but estimate it when you have enough information.

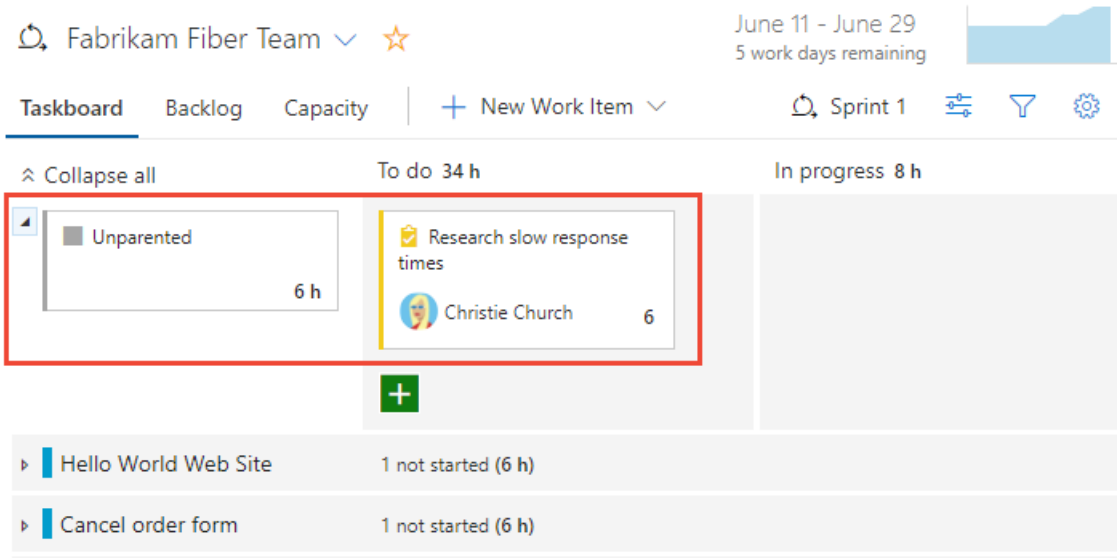
During the sprint, team members update remaining work to continually reflect the time required to complete the task. This value can actually increase after work begins. For example, after working 4 hours on a task that was estimated to take 8 hours, the team member realizes he needs 16 hours over what he estimated. He would update the *Remaining Work* field with 20 (8-4+16). As you perform a task, you might find that more time is required. Always update the task with your best estimate of remaining work. That way, you help accurately reflect the total amount of work remaining in the sprint.

FIELD	USAGE
Original Estimate	The amount of estimated work required to complete a task. Typically, this field doesn't change after it is assigned. You can specify work in hours or in days. There are no inherent time units associated with this field.
Remaining Work	The amount of work remaining to complete a task. As work progresses, update this field. It's used to calculate capacity charts and the sprint burndown chartYou can specify work in any unit of measurement your team chooses.
Completed Work	The amount of work spent implementing a task.
Activity	Select the type of activity this task represents when your team estimates sprint capacity by activity.

Unparented tasks

Tasks without links to parent backlog items or user stories appear at the top of the taskboard. You can track unparented tasks in similar ways to other tasks, or drag them to an existing backlog item to parent them. The Unparented card tracks the total of remaining work defined for all unparented tasks, however, it isn't associated with any work item.

- New navigation
- Previous navigation



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Try this next

3. Set sprint capacity

2/7/2019 • 10 minutes to read • Edit Online

3. Set sprint capacity

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

As a next step, you'll want to determine your team's actual capacity. Whereas velocity correlates to how your team estimates requirements, capacity correlates to actual task time - either hours or days. Capacity takes into consideration the variation in work hours by team members as well as holidays, vacation days, and non-working days.

Because days off and time available for each team member can vary from sprint to sprint, you can set capacity for each sprint. The capacity tool helps you make sure your team isn't over or under committed for the sprint. Also, as you work day-to-day, you'll be able to see if your team is on track.

- Set team capacity for a sprint
- Copy capacity from the previous sprint to the current sprint
- Track capacity when performing multiple activities
- Add or remove user accounts from capacity planning for a sprint
- Track capacity when working on more than one team

If you haven't set up sprints yet for your team, go here to do that now.

Prerequisites

- You must connect to a project. If you don't have a project yet, create one.
- You must be added to a project as a member of the **Contributors** or **Project Administrators** security group. To get added, Add users to a project or team.
- To view or set capacity, you must be granted **Basic** access or higher. For details, see About access levels. Users with **Stakeholder** access can't view or set capacity.

Open a Sprint backlog for a team

> **NOTE**
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

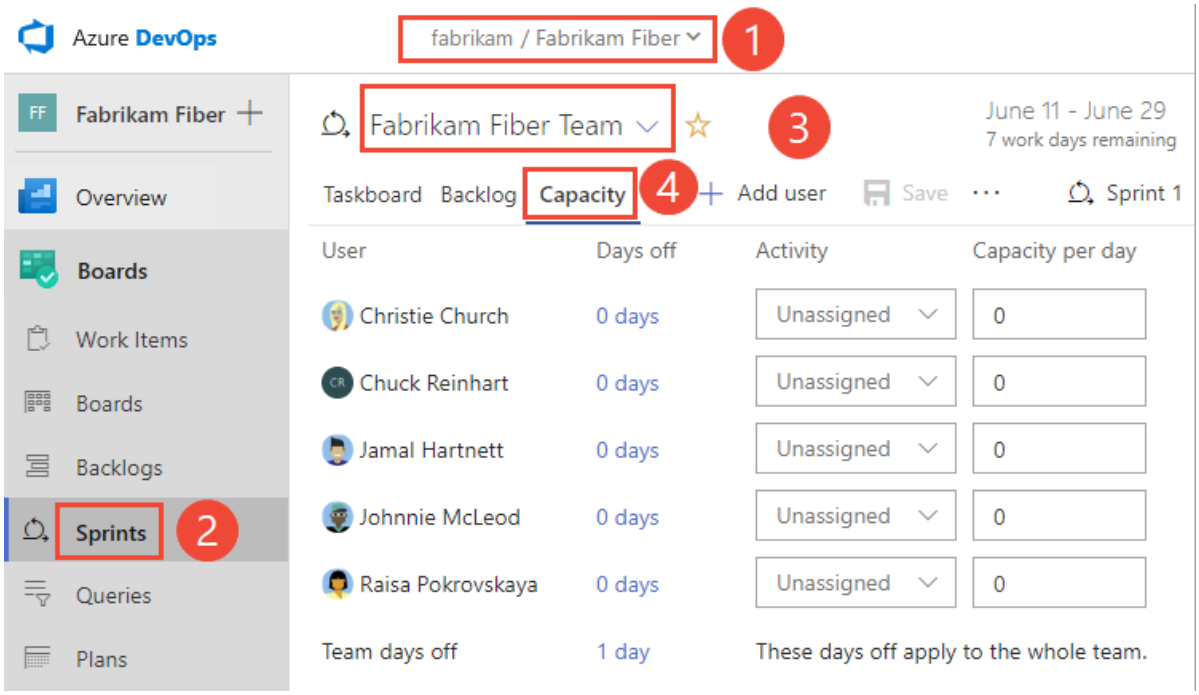
> **NOTE**
> Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

NOTE

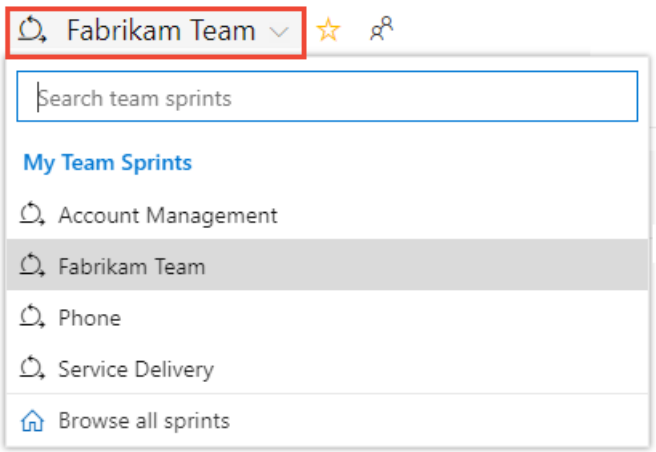
Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

- New navigation
- Previous navigation

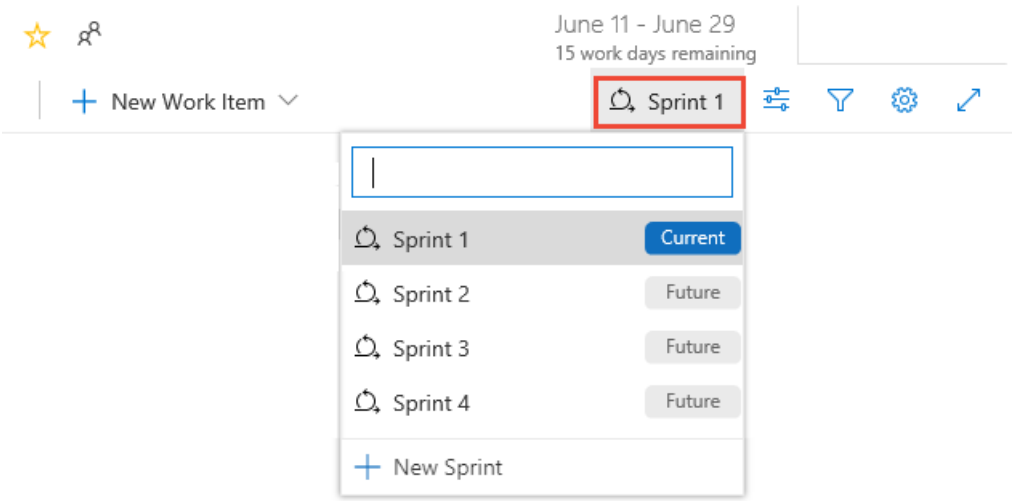
1. From your web browser, open your product backlog. (1) Check that you have selected the right project, (2) choose **Boards>Sprints**, (3) select the correct team from the team selector menu, and lastly (4), choose **Capacity**.



To choose another team, open the selector and select a different team or choose the **Browse all sprints** option. Or, you can enter a keyword in the search box to filter the list of team backlogs for the project.



2. To choose a different sprint than the one shown, open the sprint selector and choose the sprint you want.



The system lists only those sprints that have been selected for the current team focus. If you don't see the sprints you want listed, then choose **New Sprint** from the menu, and then choose **Select existing iteration**. For details, see Define iteration paths (aka sprints).

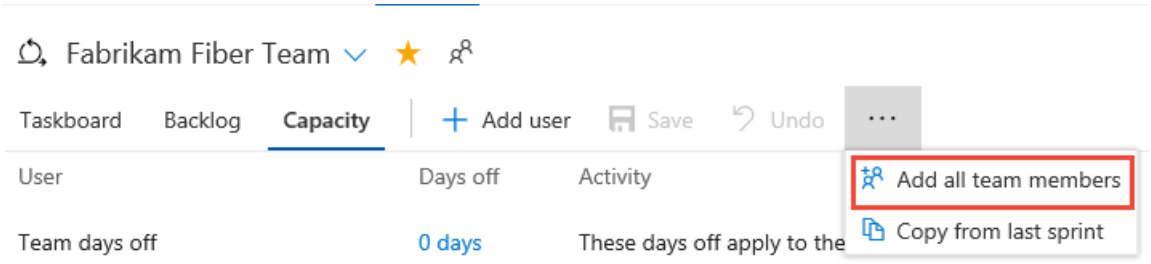
Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Set capacity for the team and team members

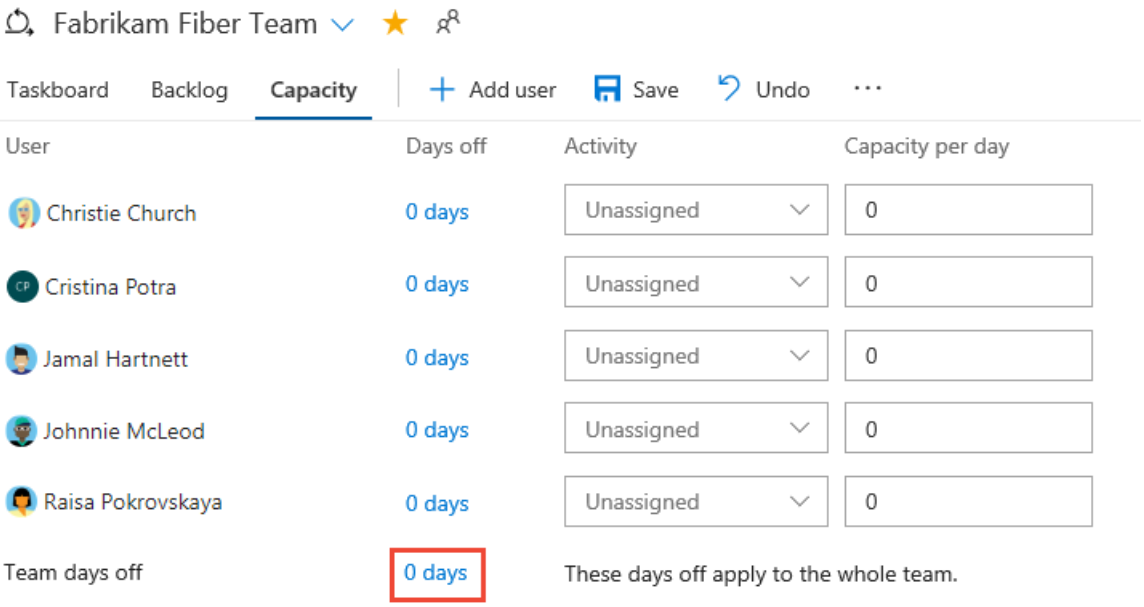
From the **Capacity** page, you can enter the team time off, and set capacity and days off for each member of your team. If your team tracks capacity by activity, then also select the Activity for each team member.

- New navigation
- Previous navigation

1. If you don't see your team members listed, add them. Choose the ··· action icon and select **Add all team members**. For this feature to work, team members will have been added to the team.



2. If you need to add other contributors to your project, choose the + **Add user**.
3. Next, set any time off that the team will take. Choose the **0 days** link as shown.



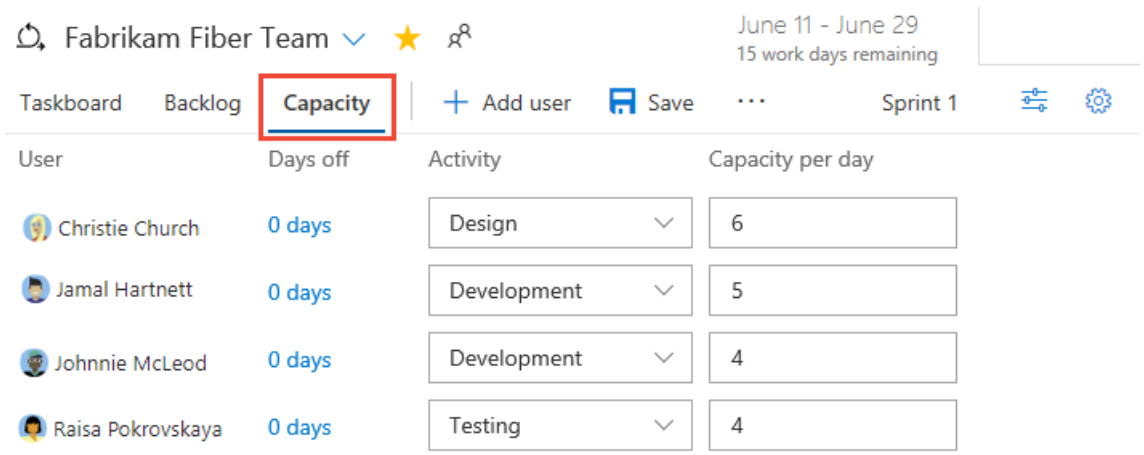
In the Days off for the entire team dialog, select the start and end days during the sprint that the team will take off.

> **NOTE**
> Your sprint planning and tracking tools automatically consider days off when calculating capacity and sprint burndown. You only have to indicate planned days off for the team. You set weekend days or other recurring days off under your team's Settings, Working days page.

4. Now, set the **Activity** and **Capacity** per day for each team member.

   Most teams specify capacity in terms of hours, however, you can also specify it in days. For example, .5 days would correspond to 4 hours for a typical 8 hour day. Choose the same unit you will use to estimate the time a task will take to complete. You only have to indicate planned days off. You manage weekend days or other recurring days off under team settings.

   For example, Christie Church's capacity is 6 hours/day for design work.



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

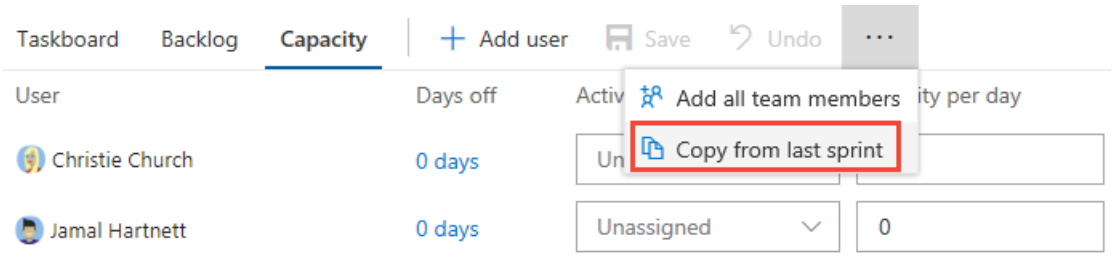
Copy capacity planning from the previous sprint

By copying the capacity from the previous sprint, you save time. With the basics defined, all you have to do is adjust the capacity based on individual and team days off and capacity allocation per activity.

> **NOTE**
> This feature is available from TFS 2015.1 and later versions.

Notice that only the capacity per day and activity are copied over. Individual and team days off remain unset. The copy operation always copies the latest updates made to the previous sprint. So you can repeat the copy operation if you've made changes to the previous sprint that you want to copy to the latest sprint.

- New navigation
- Previous navigation



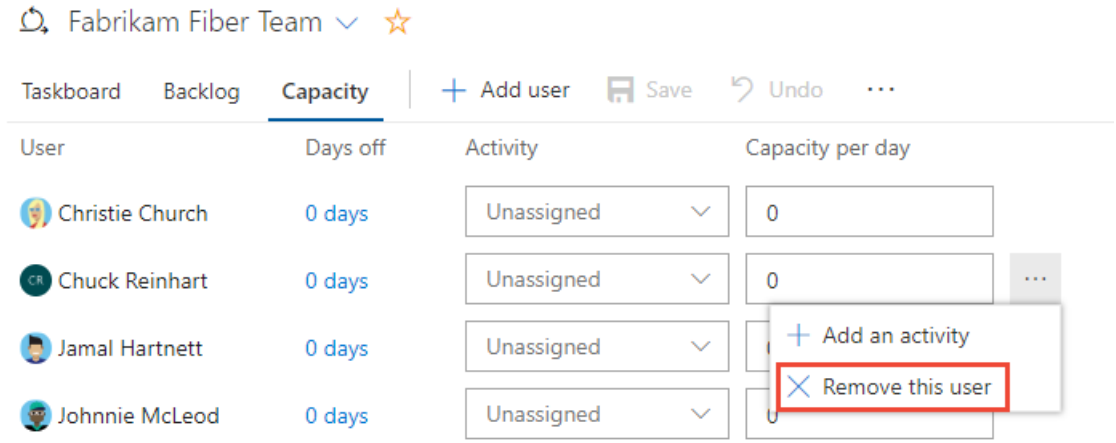
Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Remove a user from capacity

To remove a user, choose the option from the users ··· action menu.

> **NOTE**
> This feature is available from TFS 2015.1 and later versions.

- New navigation
- Previous navigation

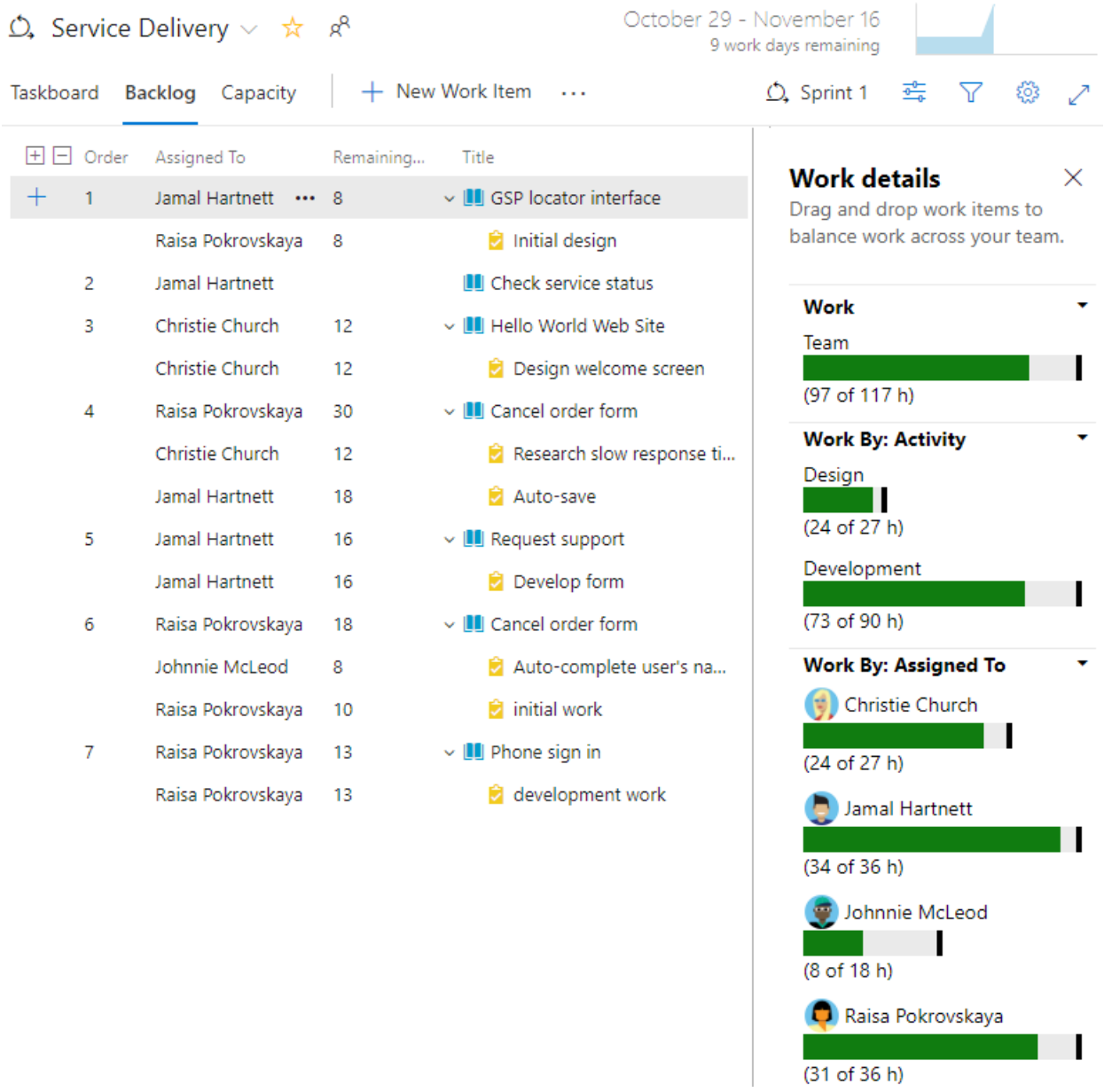


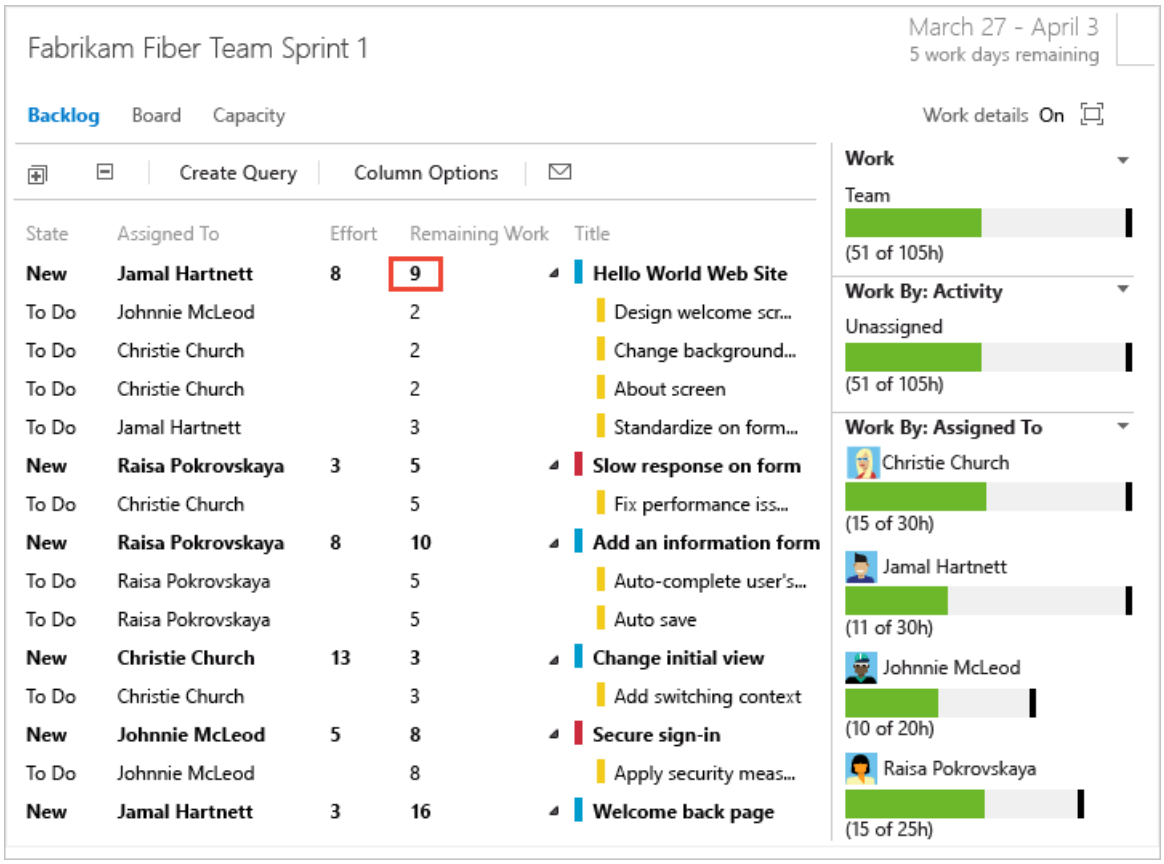
Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Review capacity charts

As you define tasks and estimate the work, you'll see capacity charts start to fill in for each team member. Capacity bars track the remaining work against the capacity for each team member as well as the entire team.

You'll also see a roll-up of the remaining work required to complete each requirement or bug.





From this view, you can easily see which individuals are at or near capacity. Teams can determine if work needs to be moved out of the sprint or to reassign tasks.

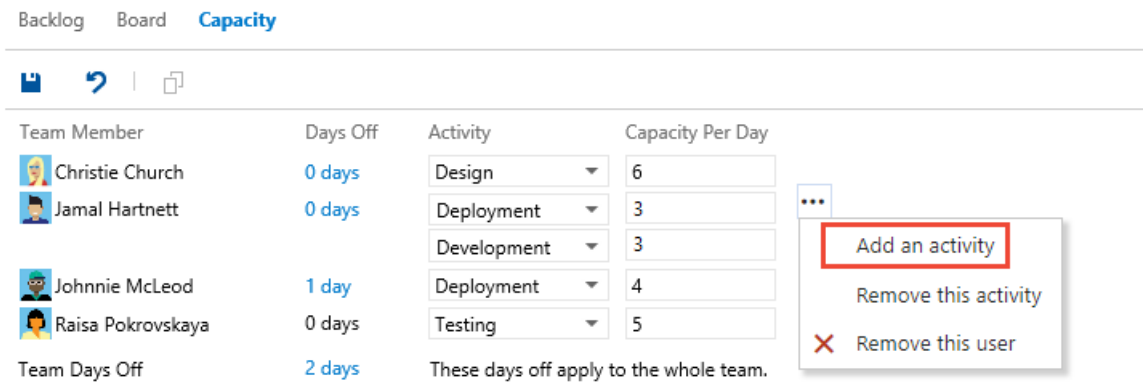
> **TIP**
>
> Define tasks that take a day or less to complete. This helps mitigate the risks that come from poor estimates.
>
> Also, don't divide tasks into subtasks. If you do divide a task into subtasks, specify Remaining Work only for the subtasks, as the system rolls up summary values to the parent task.

> **TIP**
>
> Define tasks that take a day or less to complete. This helps mitigate the risks that come from poor estimates.
>
> Also, don't divide tasks into subtasks as the taskboard will only show leaf node tasks. If you do divide a task into subtasks, specify Remaining Work only for the subtasks, as the system rolls up summary values to the parent task.

Track capacity when performing multiple activities

Because individual team members have different sets of skills and duties, you can track their activity and capacity for each activity and for each sprint.

Here, Jamal divides his time between Deployment and Development.

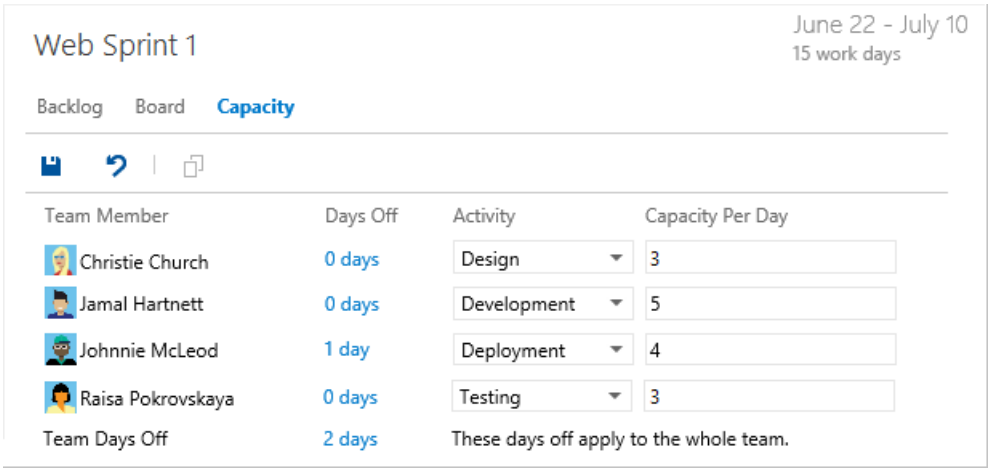


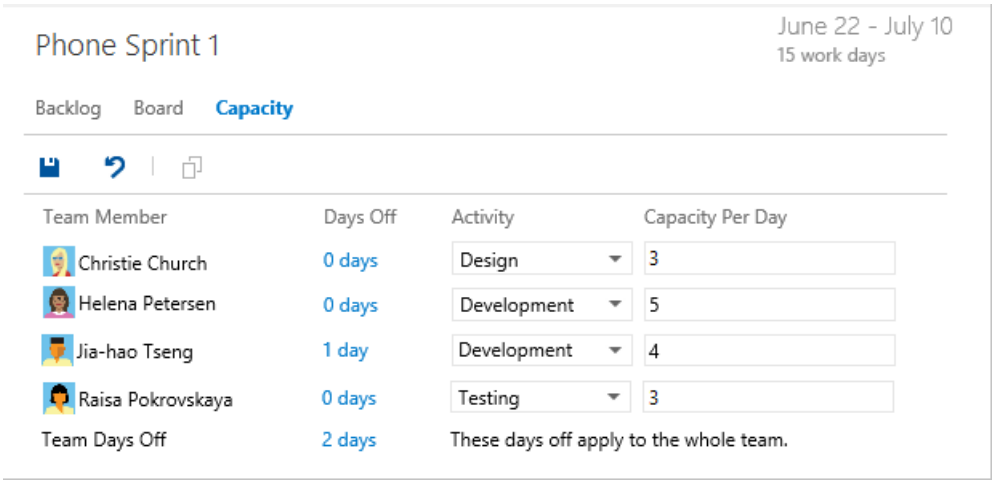
NOTE

This feature is available from TFS 2015.1 and later versions.

Track capacity when working on more than one team

If you work on more than one team, you'll want to specify your sprint capacity for each team. For example, both Christie and Raisa split their time between the Web and Phone teams. They therefore allocate 3 hours a day to the Web team, and 3 hours a day to the Phone team.





If your name isn't listed in the capacity view, you need to be added as a team member.

Try this next

4. Adjust work

Related articles

Setting capacity and estimating remaining work for each task provides you with the tools you need to track the amount of work and resources you have allocated sprint over sprint.

- Sprint burndown
- Velocity
- Forecasting
- Manage teams and configure team tools

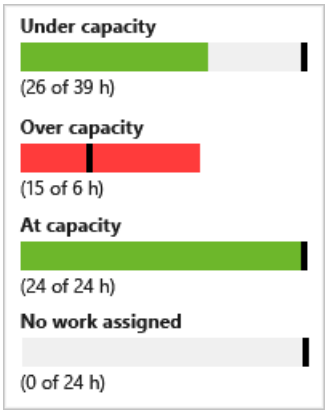
1/31/2019 • 5 minutes to read • Edit Online

4. Adjust work to fit sprint capacity

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

After you've defined all the tasks for all the sprint backlog items, you'll want to check whether your team is at or over capacity. If under capacity, you can consider adding more items onto the sprint. If over capacity, you'll want to remove items out of the backlog.

Next, check whether any team member is under, at, or over capacity. Or, if someone hasn't even been assigned any work. Use the capacity bars to make these determinations. If you haven't yet set capacity for your team, do that now.



- Adjust your sprint plan if your team is over or under capacity
- Load balance work across your team
- Quickly reassign tasks to another team member

Prerequisites

- You must connect to a project. If you don't have a project yet, create one.
- You must be added to a project as a member of the **Contributors** or **Project Administrators** security group. To get added, Add users to a project or team.
- To add or modify work items, you must be granted **Stakeholder** access or higher. For details, see About access levels.
- To view or modify work items, you must have your **View work items in this node** and **Edit work items in this node** permissions set to **Allow**. By default, the **Contributors** group has this permission set. To learn more, see Set permissions and access for work tracking.

> **NOTE**
> Users with **Stakeholder** access for a public project have full access to backlog and board features just like users with **Basic** access. For details, see About access levels.

- You must connect to a project. If you don't have a project yet, create one.
- You must be added to a project as a member of the **Contributors** or **Project Administrators** security group. To get added, Add users to a project or team.

- To add or modify work items, you must be granted **Stakeholder** access or higher. For details, see About access levels.
- To view or modify work items, you must have your **View work items in this node** and **Edit work items in this node** permissions set to **Allow**. By default, the **Contributors** group has this permission set. To learn more, see Set permissions and access for work tracking.

Open a Sprint backlog for a team

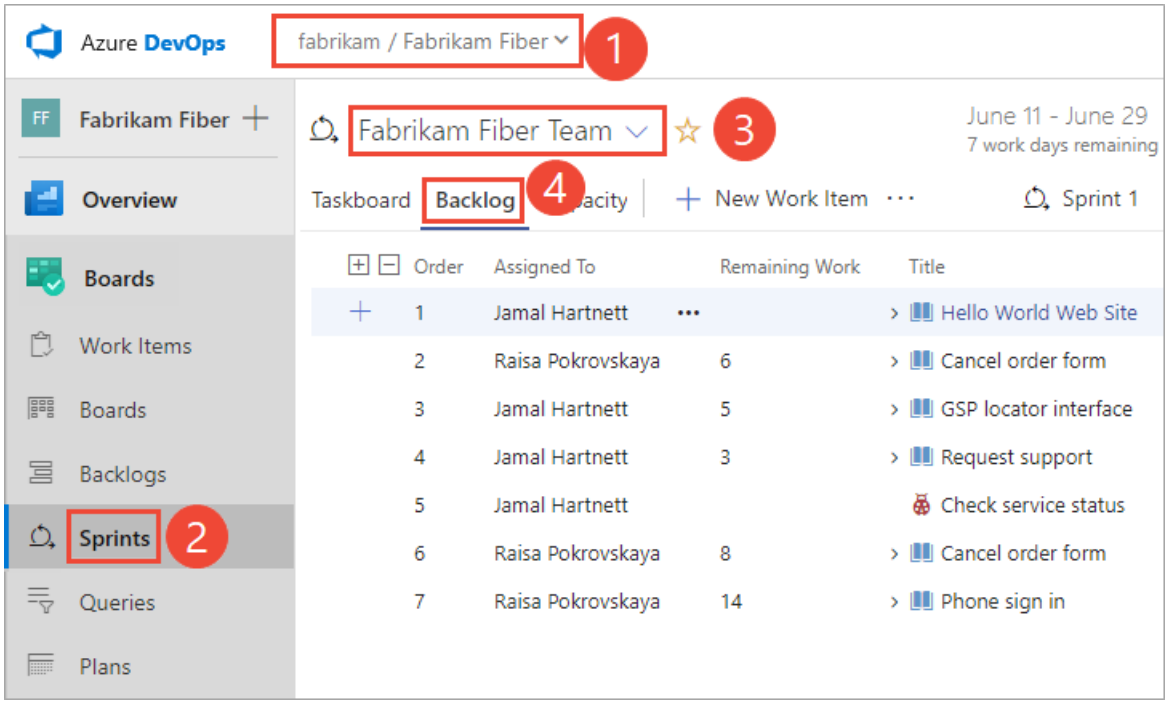
> **NOTE**
>
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

> **NOTE**
>
> Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

> **NOTE**
>
> Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

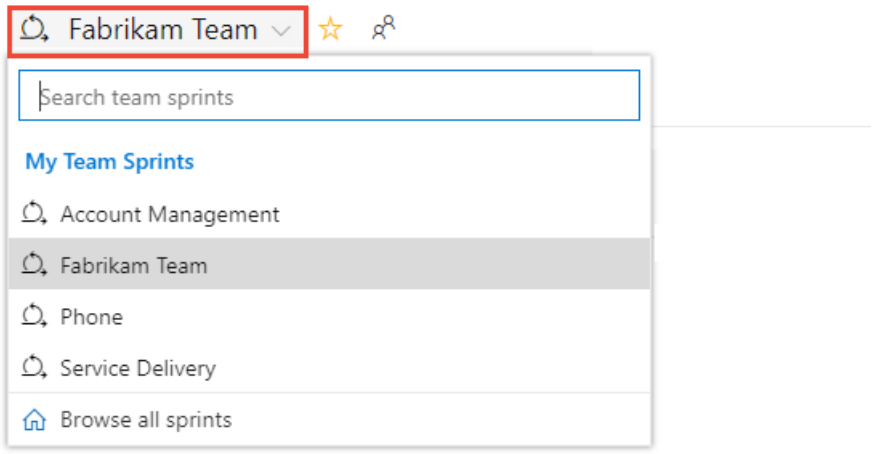
- New navigation
- Previous navigation

1. From your web browser, open the sprint backlog for your team. (1) Check that you have selected the right project, (2) choose **Boards>Sprints**, (3) select the correct team from the team selector menu, and lastly (4), choose **Backlog**.

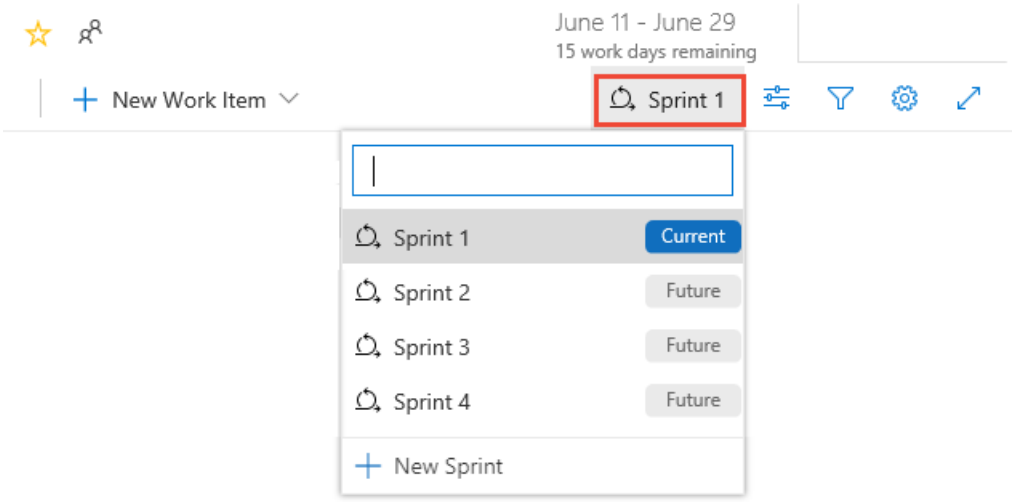


To choose another team, open the selector and select a different team or choose the **Browse all sprints**

option. Or, you can enter a keyword in the search box to filter the list of team backlogs for the project.



2. To choose a different sprint than the one shown, open the sprint selector and choose the sprint you want.



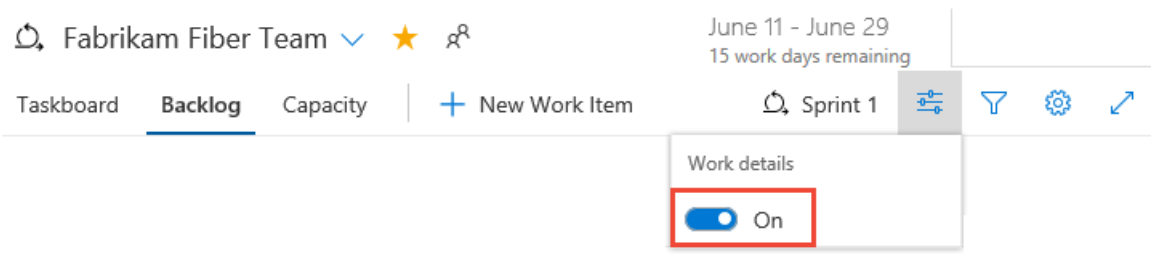
The system lists only those sprints that have been selected for the current team focus. If you don't see the sprints you want listed, then choose **New Sprint** from the menu, and then choose **Select existing iteration**. For details, see Define iteration paths (aka sprints).

Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Check your team capacity

To view capacity charts, you'll want to turn **Work details** on for a sprint.

- New navigation
- Previous navigation



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier

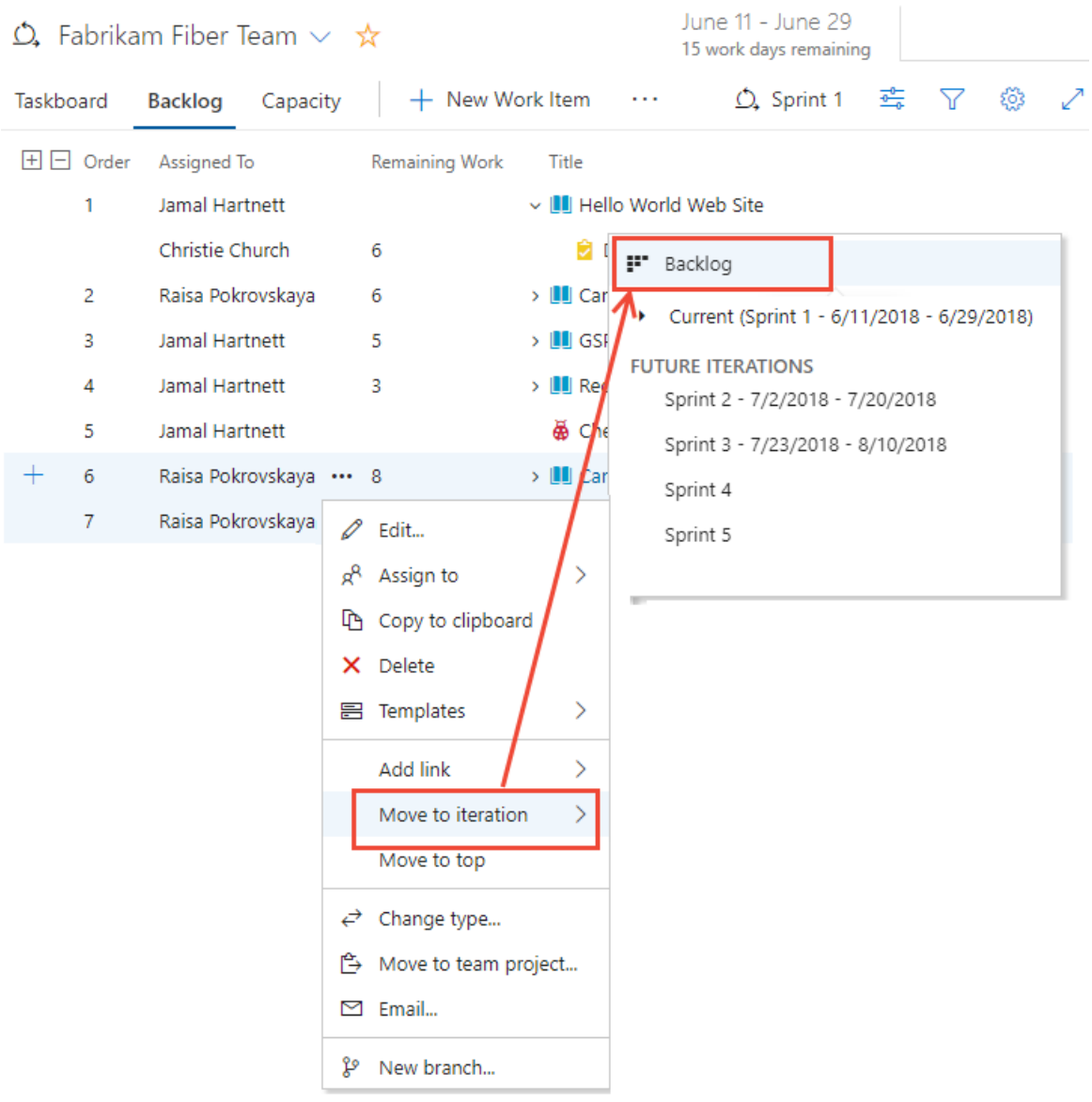
versions.

Team over capacity: move items out of the sprint

If your team's over capacity, you can move items from the sprint backlog back to the product backlog. This will reset the Iteration Path to the default set for your team. Or, you can move the item into the next sprint your team will work in. All the tasks that you've defined for that item will move with the backlog items.

- New navigation
- Previous navigation

Here we select two items at the bottom of the sprint backlog, open the ··· action icon for one of the items, choose **Move to iteration**, and then select **Backlog**.



TIP

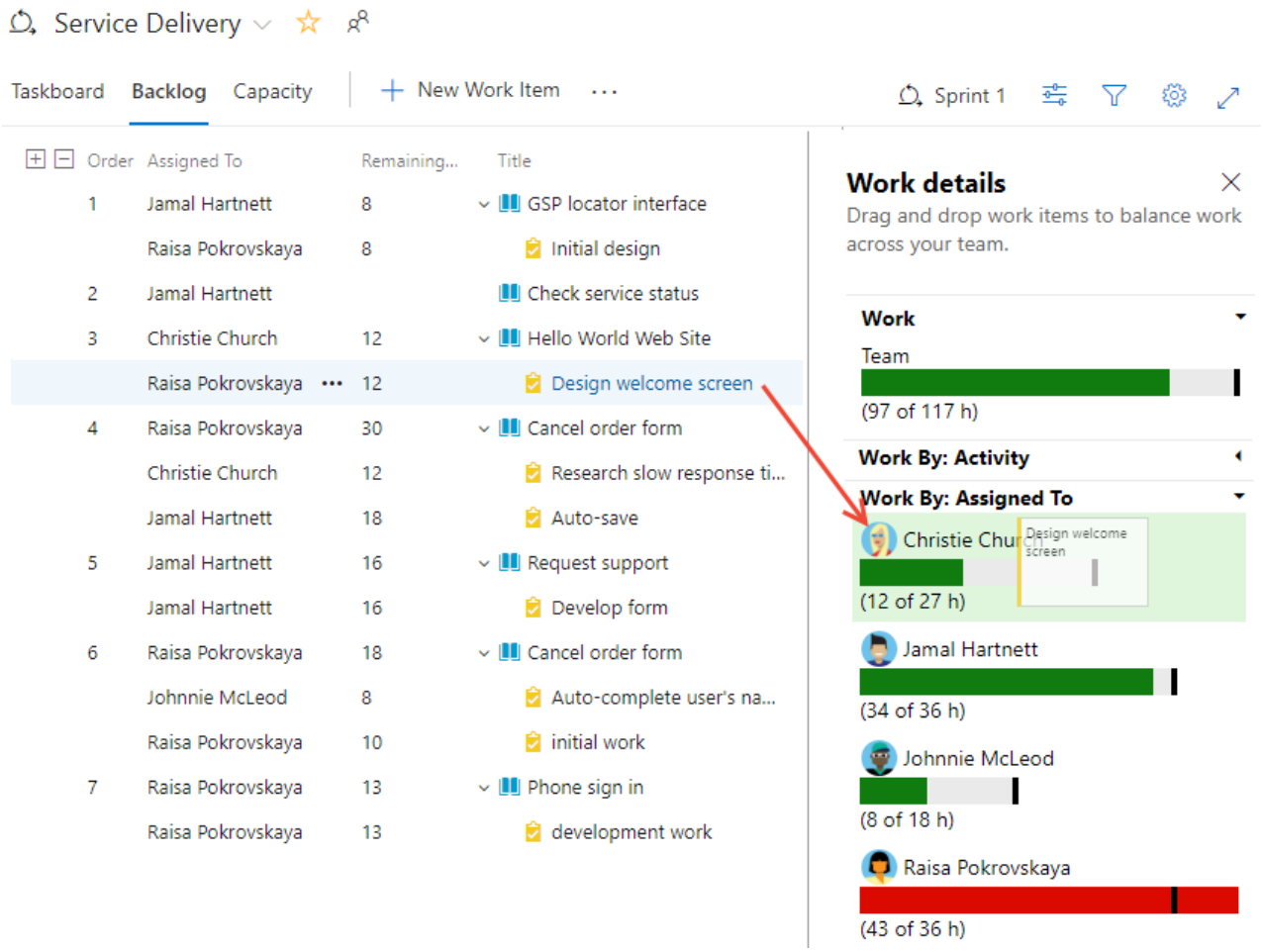
Optionally, you can open the **Planning** pane and drag a work item to the backlog or another sprint which will reassign all child tasks to the same iteration path. See Assign work to a sprint. Also, you can multi-select several items and drag them to the backlog or another sprint. Users with **Stakeholder** access can't drag-and-drop work items.

Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

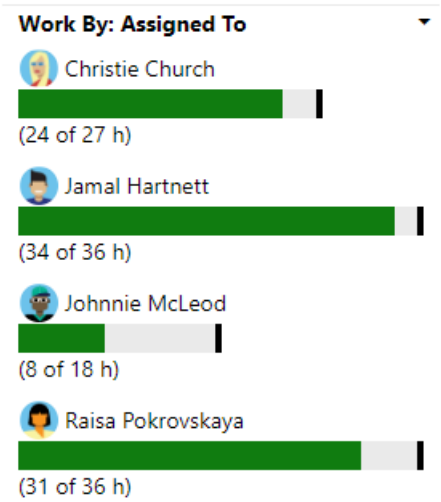
Load balance work across the team

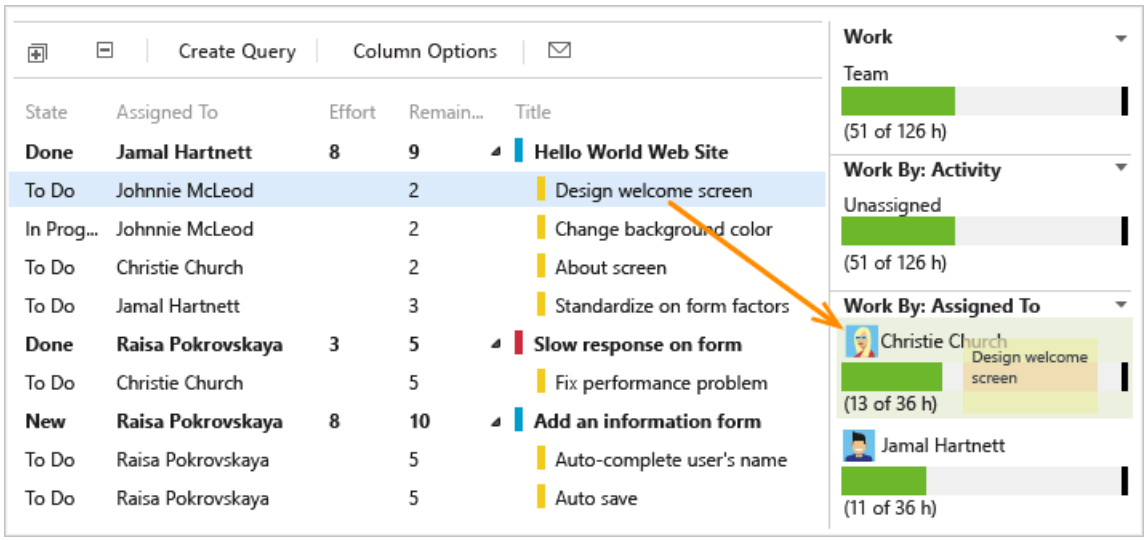
To quickly reassign tasks, drag the task onto the new assignee's capacity bar.

For example, here we reassign work from Raisa Pokrovskaya to christie Church.



As you reassign tasks, capacity bars automatically update.





Try this next

5. Share your sprint plan

1/31/2019 • 4 minutes to read • Edit Online

5. Share your sprint plan

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Once you've completed your sprint plan, you can easily share it with other members of your team or organization. This article shows you how to:

- Create a query from your sprint plan
- Email your sprint plan

Any stakeholder on your team (someone with permissions to connect to your project) can view your sprint plan. Simply send them the URL of your sprint backlog page. But also, you can share it with them through email or print a version.

Open a Sprint backlog for a team

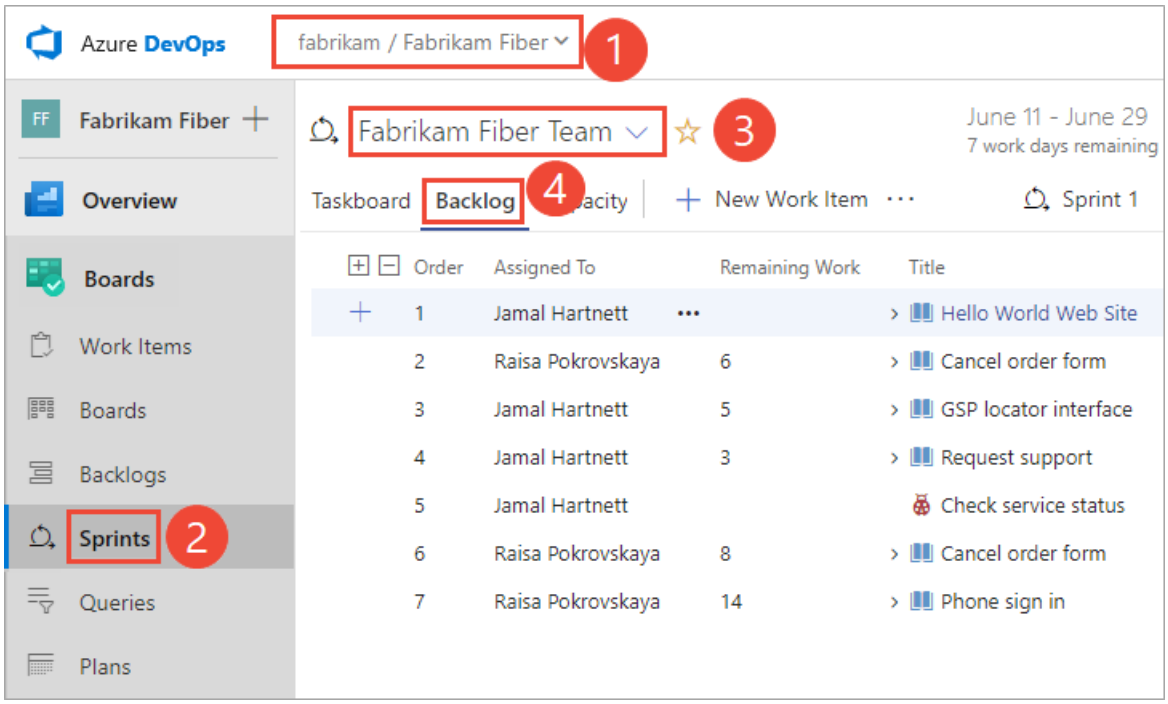
> **NOTE**
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

> **NOTE**
> Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

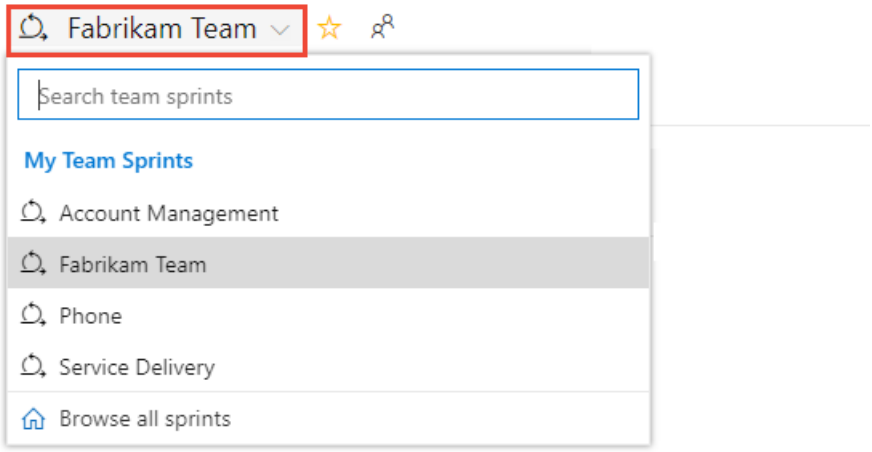
> **NOTE**
> Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

- New navigation
- Previous navigation

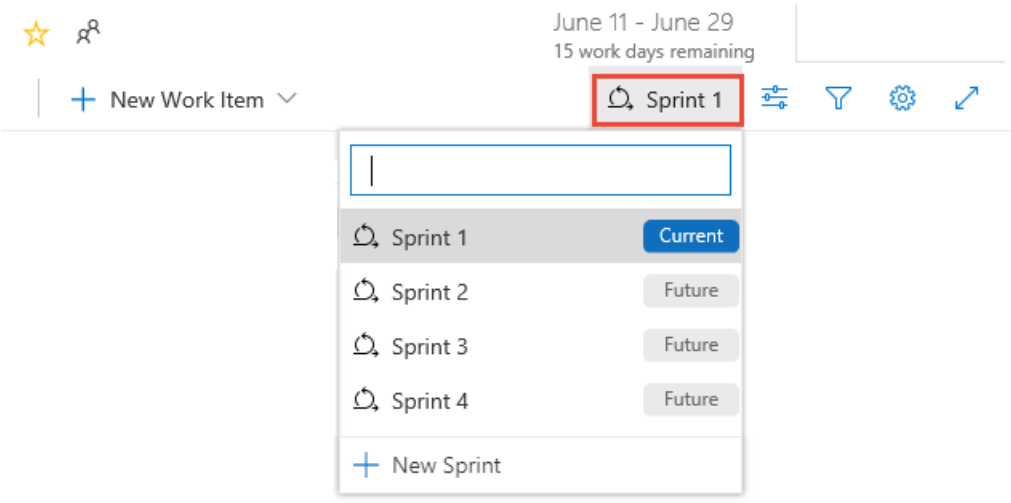
1. From your web browser, open your product backlog. (1) Check that you have selected the right project, (2) choose **Boards>Sprints**, (3) select the correct team from the team selector menu, and lastly (4), choose **Backlog**.

2. 

To choose another team, open the selector and select a different team or choose the **Browse all sprints** option. Or, you can enter a keyword in the search box to filter the list of team backlogs for the project.



3. To choose a different sprint than the one shown, open the sprint selector and choose the sprint you want.



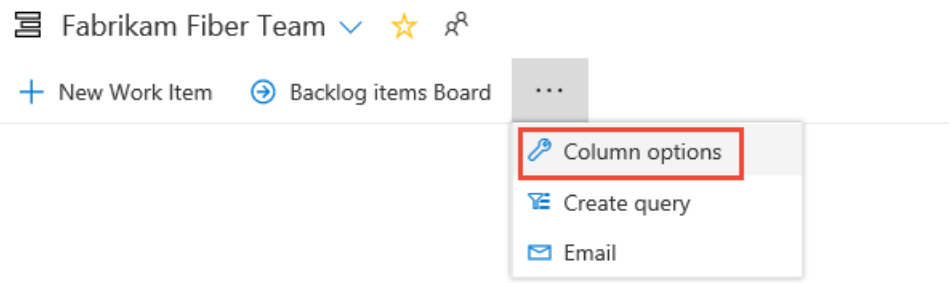
The system lists only those sprints that have been selected for the current team focus. If you don't see the sprints you want listed, then choose **New Sprint** from the menu, and then choose **Select existing iteration**. For details, see Define iteration paths (aka sprints).

Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

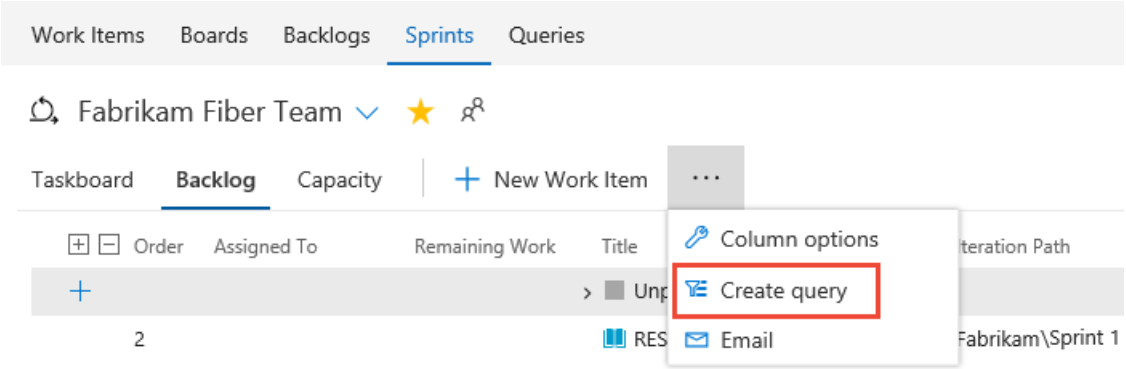
Create query of your sprint plan

- New navigation
- Previous navigation

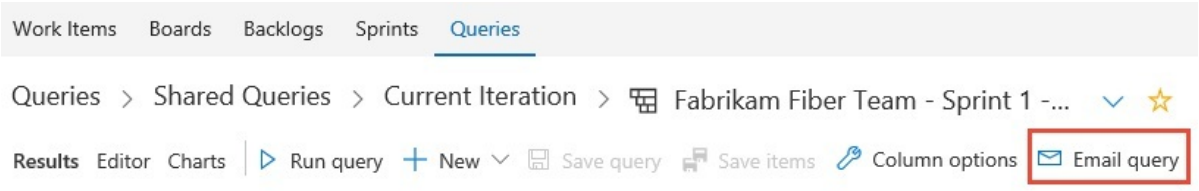
1. (Optional) To choose which columns should display and in what order, choose the ··· actions icon and select **Column options**. To learn more, see Change column options.



2. To email your sprint plan, create and save the query for the sprint backlog.



3. Then, open the query and choose the email icon.



4. In the form that appears, enter the name(s) of valid users (ones who have access to the project).

> **IMPORTANT**
> You can only send the email to individual address for a project member that is recognized by the system. Adding a team group or security group to the to line isn't supported. If you add an email account that the system doesn't recognize, you receive a message that one or more recipients of your email don't have permissions to read the mailed work items.

Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Or, you can select all the items in the list, choose **Copy as HTML**, and paste the formatted list into an email form or Word document. See Copy a list of work items.

Try this next

6. Update the taskboard

Related articles

- Email or print work items
- Share information in work items and social tools

6. Update and monitor your Taskboard

1/31/2019 • 11 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Once you have your sprint plan in place, you'll execute that plan for the duration of the sprint. In your daily Scrum meetings, your team can view progress made to backlog items and tasks from the sprint **Taskboard**.

Your **Taskboard** provides a visualization of flow and status of each sprint task. With it, you can focus on the status of backlog items as well as work assigned to each team member. It also summarizes the total amount of remaining work to complete for a task or within a column.

In this article you'll learn how to:

- Open the sprint **Taskboard** for your team
- Customize your **Taskboard**
- Use your **Taskboard** to review progress during daily scrum meetings
- Filter and group work items on your **Taskboard**
- Update the status of tasks through drag-and-drop
- Update remaining work
- Close out a sprint

If you haven't yet added tasks to your sprint backlog, do that now.

> **NOTE**
> Your **Taskboard** is one of two types of boards available to you. For an overview of the features supported on each backlog and board, see Backlogs, boards, and plans.

Prerequisites

- You must connect to a project. If you don't have a project yet, create one.
- You must be added to a project as a member of the **Contributors** or **Project Administrators** security group. To get added, Add users to a project or team.
- To add work items and exercise all board features, you must be granted **Basic** access or higher. For details, see About access levels.
- To view or modify work items, you must have your **View work items in this node** and **Edit work items in this node** permissions set to **Allow**. By default, the **Contributors** group has this permission set. To learn more, see Set permissions and access for work tracking.

> **NOTE**
> Users with **Stakeholder** access can't exercise these **Taskboard** features: add tasks, update fields displayed on cards, or drag-and-drop tasks to update status or change sprint assignment.

Open the sprint Taskboard for your team

NOTE

Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

NOTE

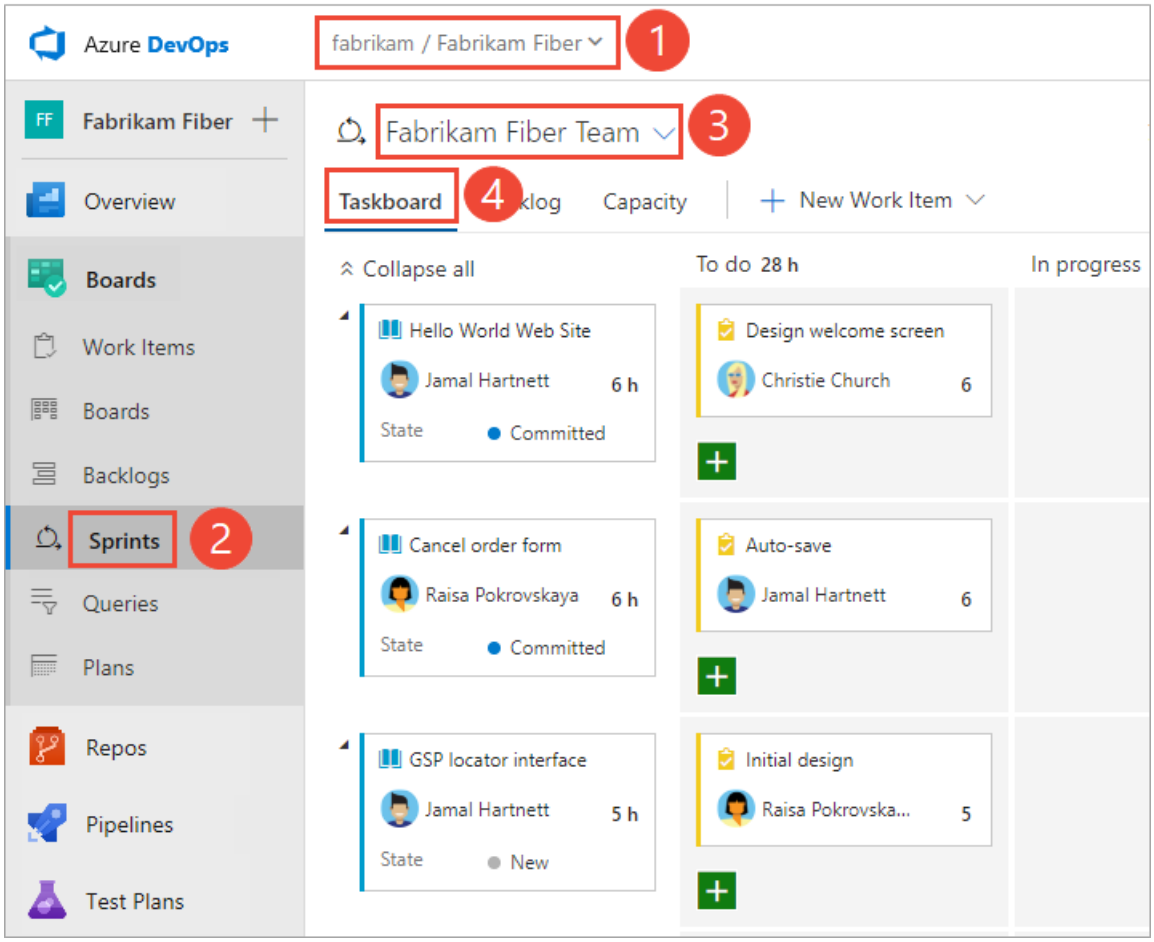
Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

NOTE

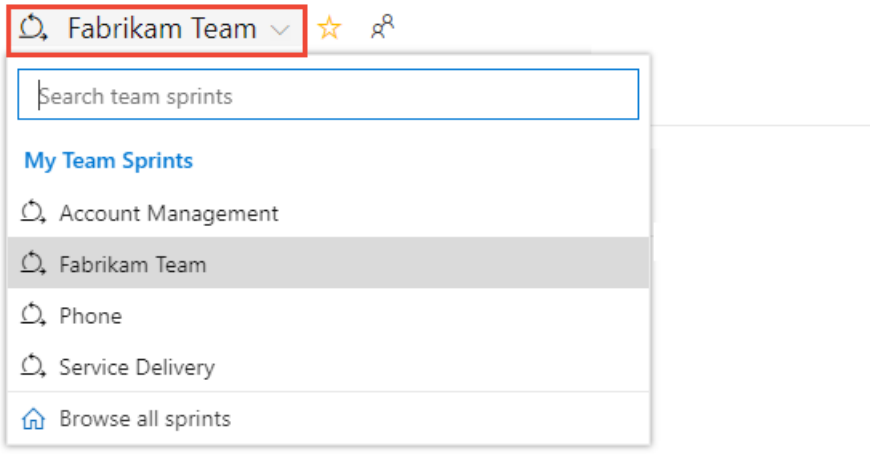
Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

- New navigation
- Previous navigation

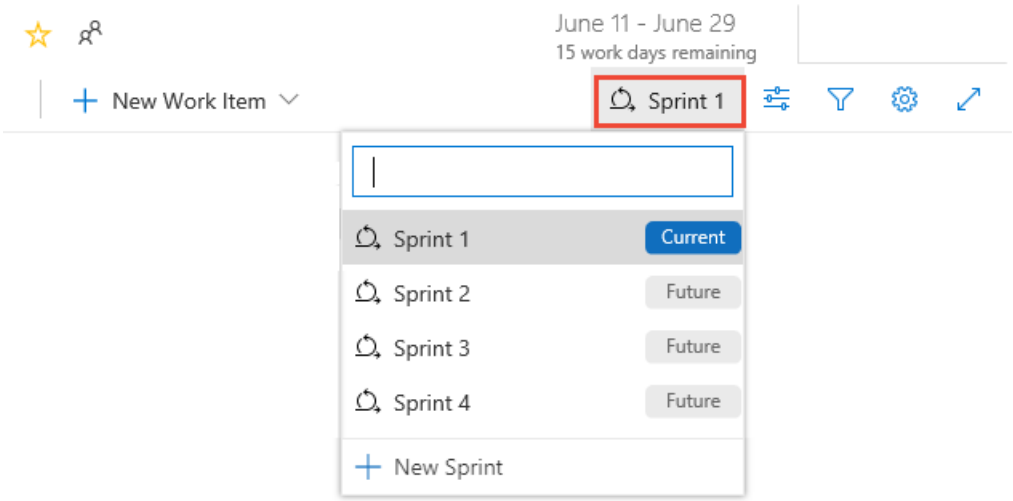
1. From your web browser, open the sprint backlog for your team. (1) Check that you have selected the right project, (2) choose **Boards>Sprints**, (3) select the correct team from the team selector menu, and lastly (4), choose (4) **Taskboard**.



To choose another team, open the selector and select a different team or choose the **Browse all sprints** option. Or, you can enter a keyword in the search box to filter the list of team backlogs for the project.



2. To choose a different sprint than the one shown, open the sprint selector and choose the sprint you want.



   The system lists only those sprints that have been selected for the current team focus. If you don't see the sprints you want listed, then choose **New Sprint** from the menu, and then choose **Select existing iteration**. For details, see Define iteration paths (aka sprints).

Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Customize the taskboard

Each team can customize their **Taskboard** in the following ways:

- Customize cards that appear on the **Taskboard** to show additional fields.
- Show bugs on the Taskboard, your team can choose to manage bugs similar to product backlog items, as shown in this article, or manage them similar to tasks. When you track bugs similar to tasks, they'll show up on your sprint backlogs and **Taskboards** at the same level as tasks.

Unlike the Kanban board for a product backlog, you can't add additional columns to the **Taskboard** via a team configuration setting. Instead, you need to modify the workflow definitions for the task work item type used by the project. This would update the columns for the **Taskboard** for all teams within the project.

An administrator can customize the **Taskboard** for all teams in the following ways:

- Add a custom workflow state to the task WIT for a process
- Add a custom work item type to the Taskboard for a process

An administrator can customize the **Taskboard** for all teams in the following ways based on the process model

selected for the project: **Inherited process model:**

- Add a custom workflow state to the task WIT for a process
- Add a custom work item type to the Taskboard for a process

On-prem XML process model:

- Add a custom workflow state to the task WIT for a process
- Add a custom work item type to the Taskboard for a process

An administrator can customize the **Taskboard** for all teams in the following ways:

- Modify the workflow for the task WIT definition.
- Add a work item type to a backlog or board.

Review progress in daily scrum meetings

During your daily Scrum, you can filter your **Taskboard** to help focus on items of interest.

- Group by Backlog items or Group by stories to monitor progress of your product backlog items, stories, requirements, or bugs.
- Group by People when you want to monitor progress of individual team members.

Use the Person filter when you want to focus on work assigned to individual team members.

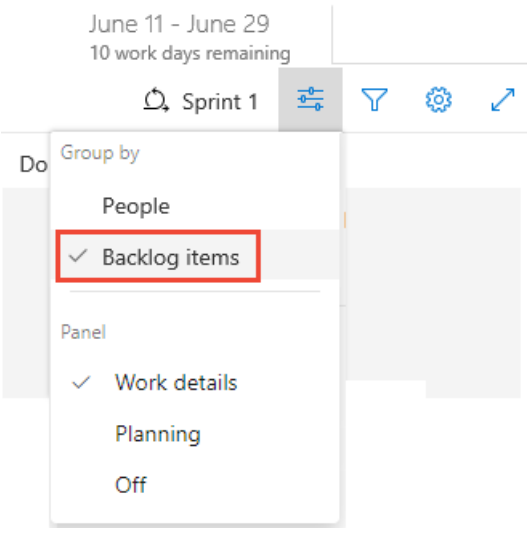
> **TIP**
> If you're seeing tasks that don't belong to your team, check that you'veselected the correct team.

Show progress on items

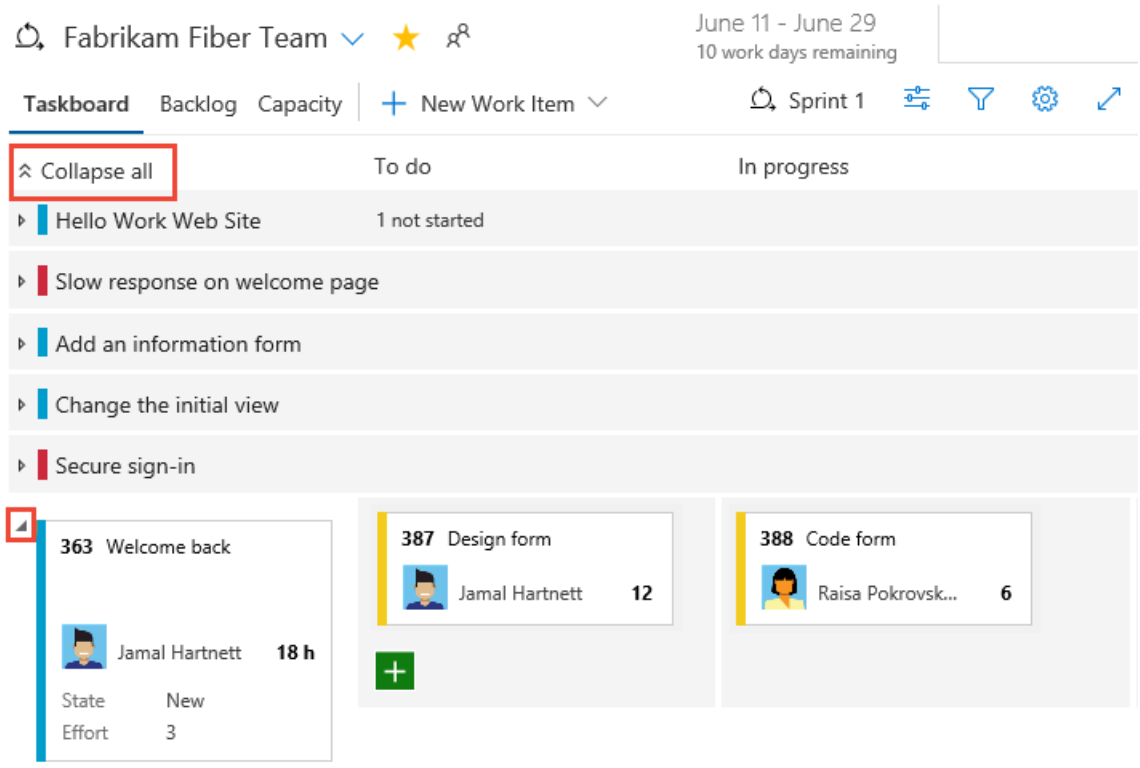
With this view, you can quickly see which items are nearing completion and which have yet to be started.

- New navigation
- Previous navigation

1. To show cards based on their backlog-to-task groupings, choose the view options icon and select **Backlog items** (for Scrum), **Stories** (for Agile) and **Requirements** (for CMMI).



2. You can **Collapse All** or **Expand All** rows, and selectively expand and collapse a row to focus on a particular item and its tasks.



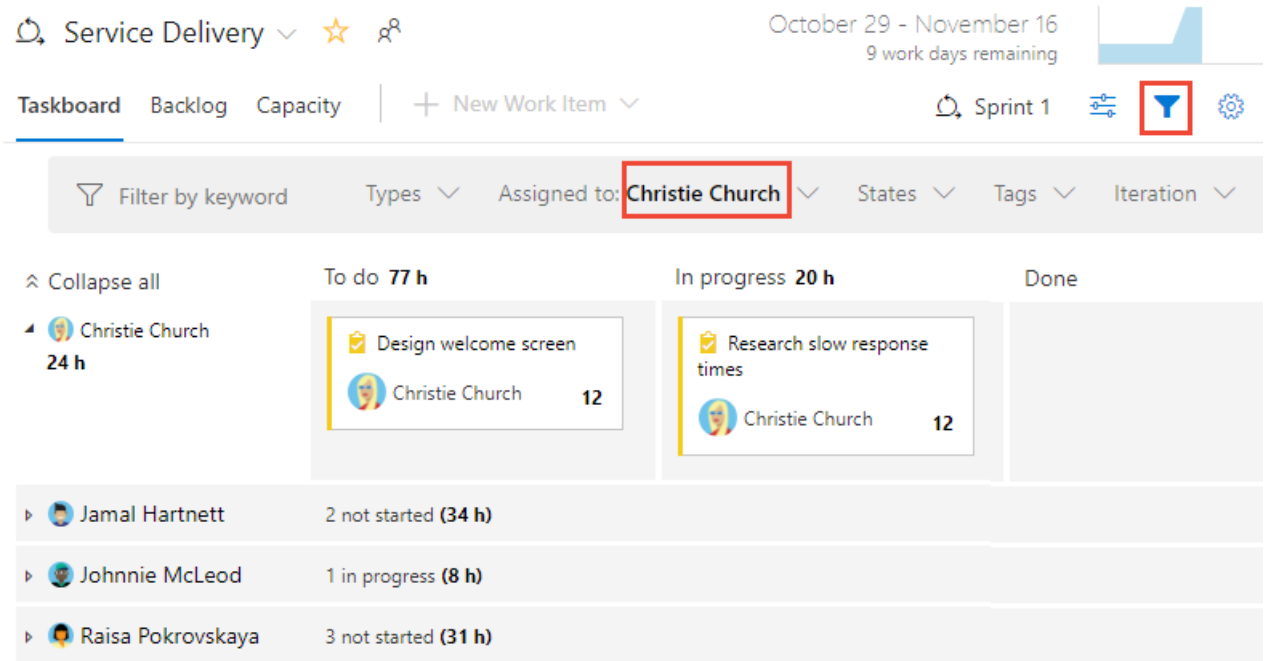
Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Show progress of individuals

With this view, you can focus on the work completed and the work remaining for each individual team member. You can quickly see who may need help to complete their sprint tasks. This view shows items and tasks assigned to the selected team member.

- New navigation
- Previous navigation

To filter on the tasks for a specific team member, choose the filter icon, and then select their name from the **Assigned to** filter box.



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

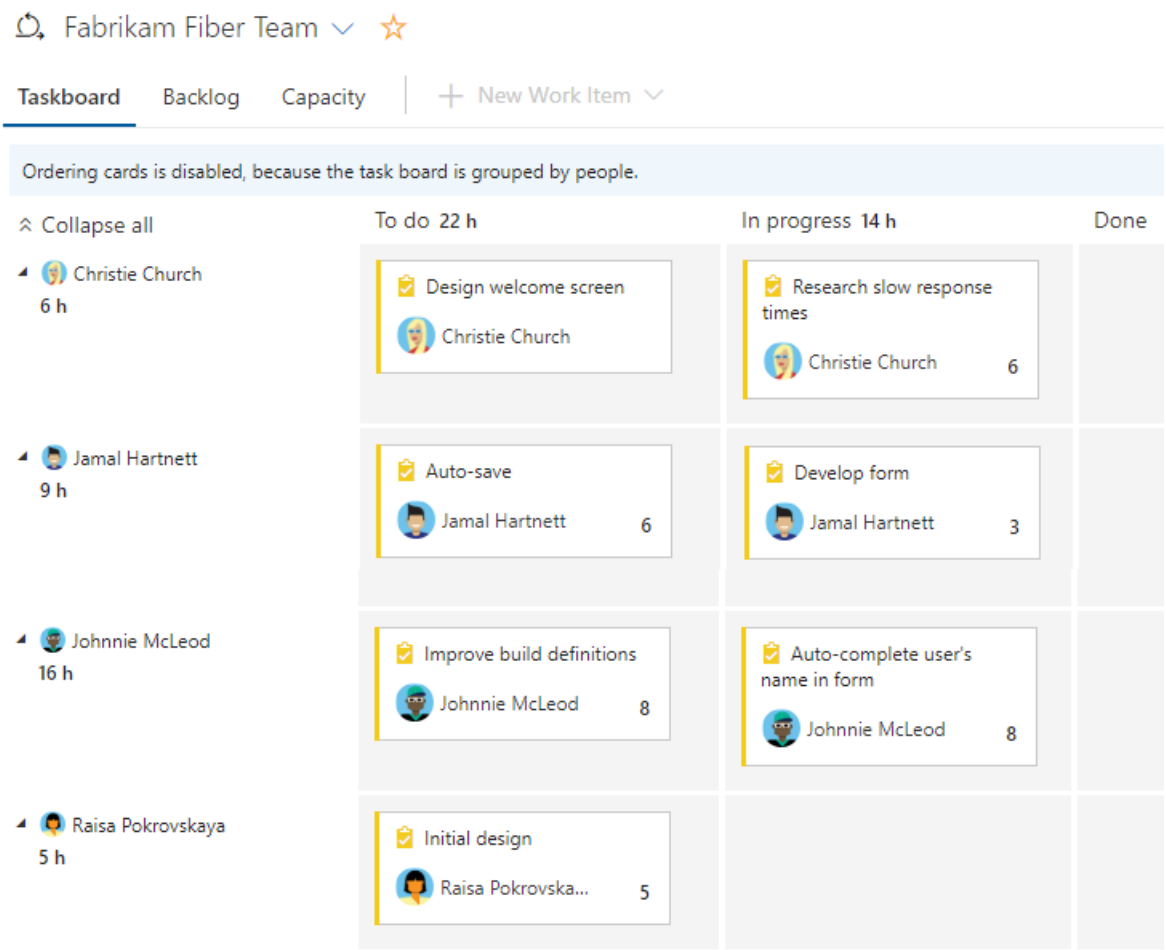
Group by team members

With this view, you can quickly see all the tasks associated with each team member. Backlog items don't appear in this view, only the tasks associated with each individual.

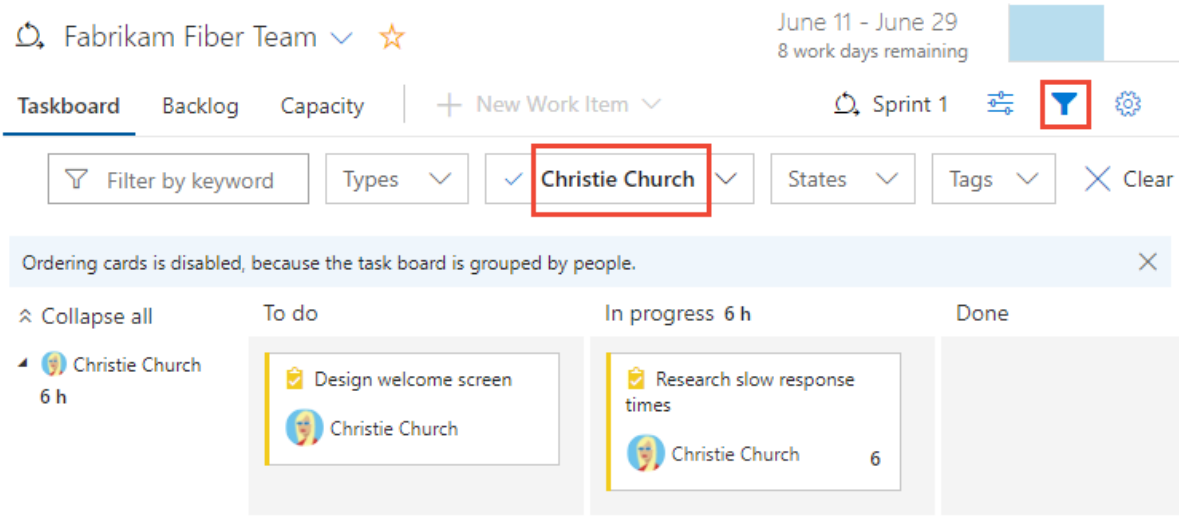
- New navigation
- Previous navigation

1. Choose the view options icon and select **People**.

   Only those team members with tasks assigned to them are listed. All their tasks are shown as cards under their column state.



2. To filter on the tasks for a specific team member, choose the filter icon, and then select their name from the **Assigned to** filter box.



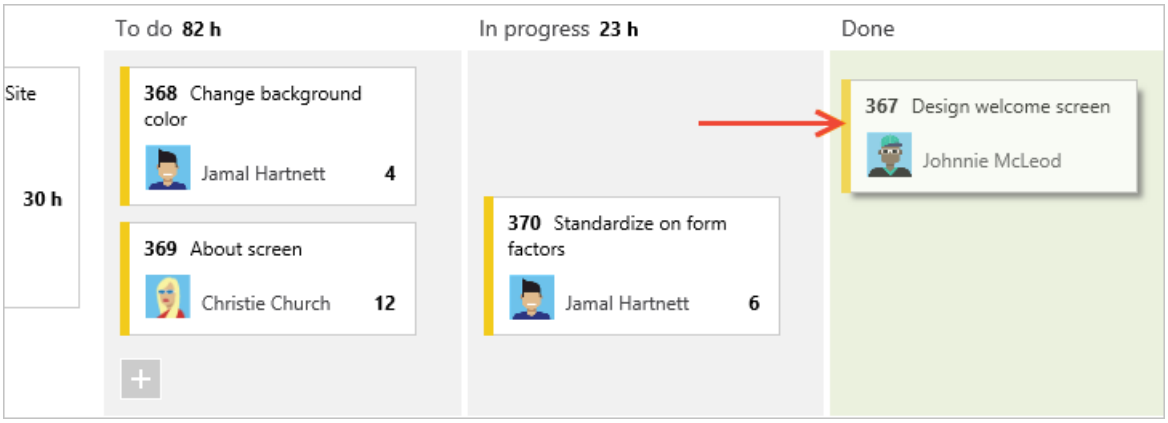
Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Update tasks during the sprint cycle

The **Taskboard** makes quick work of updating both task status and remaining work.

Update task status

Simply drag tasks to a downstream column to reflect if they are in progress or completed.

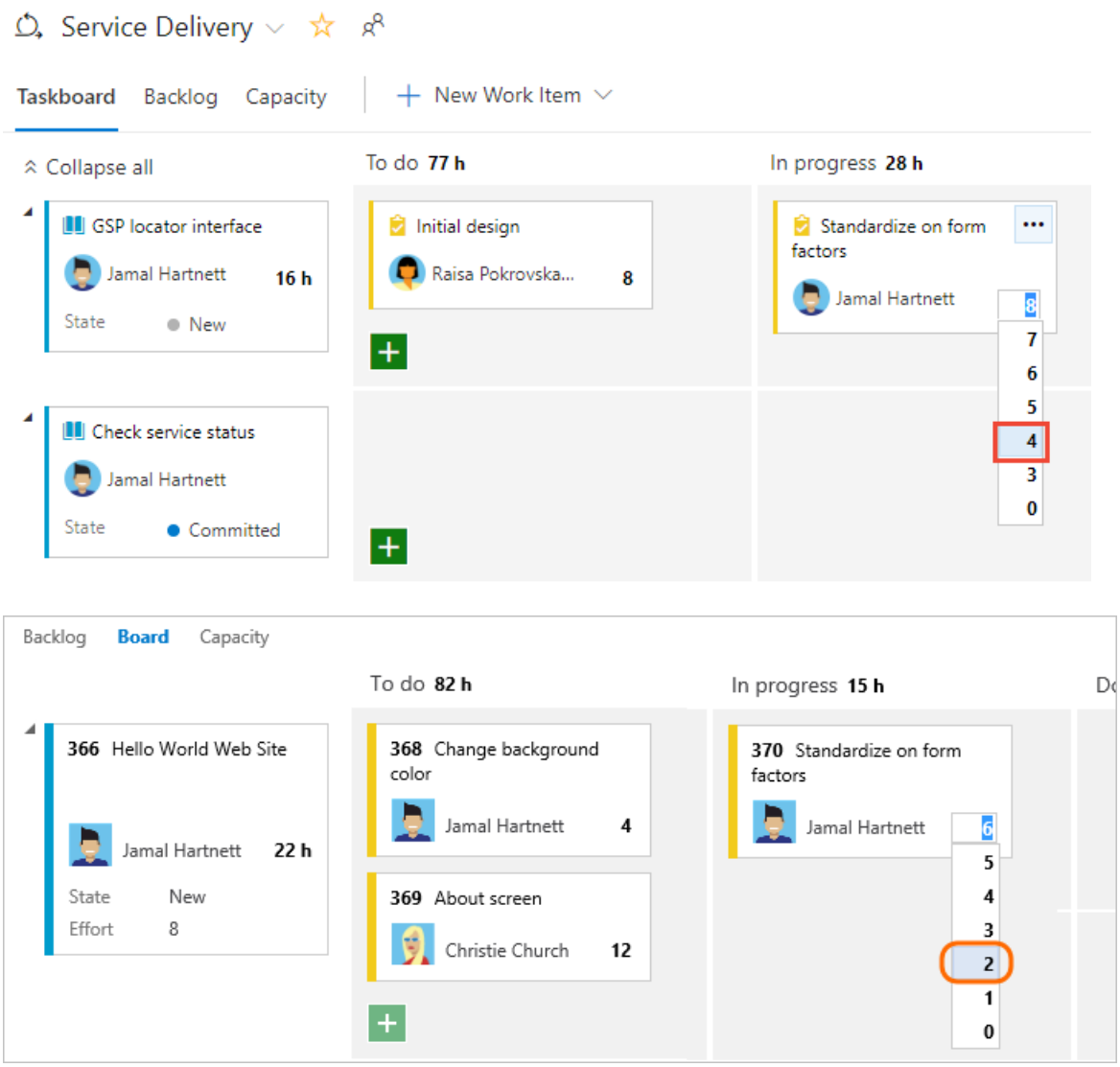


When you move a task to the Done or Completed column, the system automatically updates the *Remaining Work* field to 0. If you discover more work is remaining, change the State back to In progress or To do and enter a value for the remaining work.

Update remaining work

Updating *Remaining Work*, preferably prior to the daily Scrum meeting, helps the team stay informed of the progress being made. It also ensures a smoother burndown chart.

Each team member can review the tasks they've worked on and estimate the work remaining. If they've discovered that it's taking longer than expected to complete, they should increase the remaining work for the task. *Remaining Work* should always reflect exactly how much work the team member estimates is remaining to complete the task.



Close out a sprint, update your Taskboard

At the end of the sprint, you'll want to perform these final tasks:

- Zero out *Remaining Work* of all completed tasks
- Update the status of all completed backlog items
- Drag incomplete backlog items and tasks to the next sprint or back to the product backlog.

Dragging an incomplete item to the product backlog or to a future sprint updates the Iteration Path of all uncompleted child tasks to correspond to the product backlog iteration path or future sprint.

You can drag-and-drop work items onto a sprint from any backlog or board.

You can drag-and-drop work items onto a sprint from any backlog or board. Requires TFS 2015.1 or later version.

Try this next

Work with sprint burndown charts to monitor progress, manage scope creep, and mitigate risks.

Related articles

As you can see, the taskboard provides a lot of support for your Scrum activities. For related topics, see:

- Scrum best practices
- Sprint planning

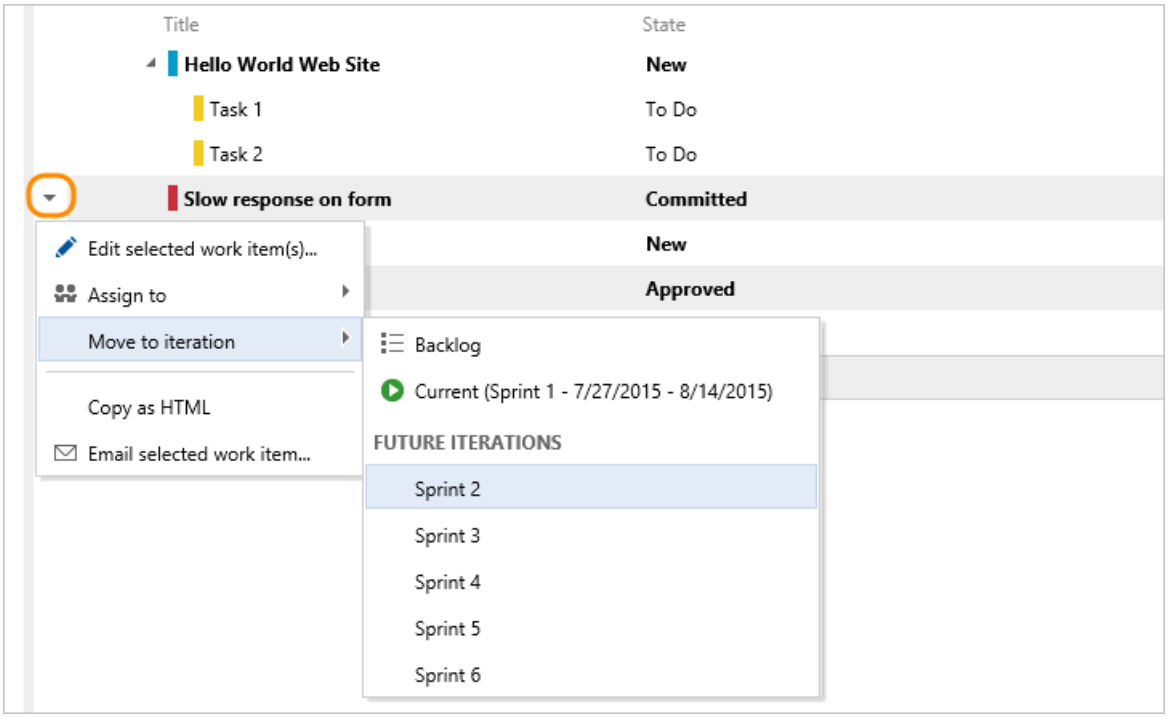
- Schedule sprints
- Customize cards on the taskboard
- Capacity planning

Reduce the number of items on the taskboard

If you exceed the number of items allowed on your taskboard, you'll receive a message indicating that you need to reduce the number of items. The maximum number of items includes work item types included in the Requirement and Task categories.

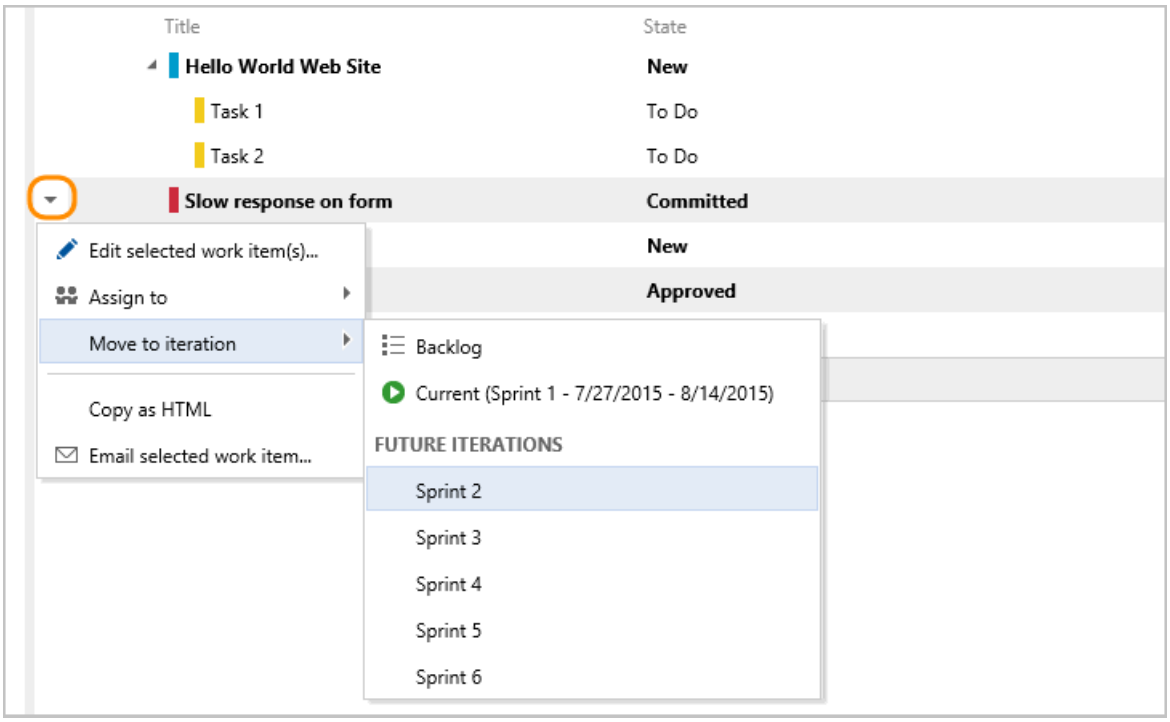
You can reduce the number of items on the taskboard by moving them to the backlog or another sprint. When you move a parent PBI or user story, all active child tasks (State not equal to Done or Closed) automatically move with the parent item.

- From the taskboard, drag the PBI or user story from the first column onto the backlog or future sprint. All child tasks automatically move with the parent item.
- From the sprint backlog, multi-select the items to move and then click the context menu for an item and select the iteration to move them to.

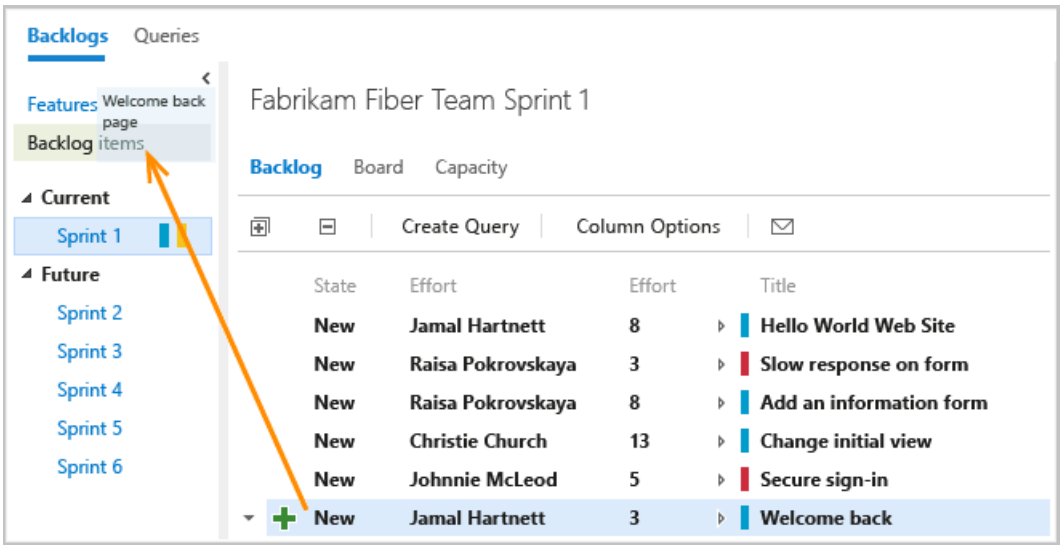


Requires TFS 2015.1 or later version.

- From the taskboard, drag the PBI or user story from the first column onto the backlog or future sprint. All child tasks automatically move with the parent item.
- From the sprint backlog, multi-select the items to move and then click the context menu for an item and select the iteration to move them to.



- From the taskboard, drag the PBI or user story from the first column onto the backlog or future sprint.
- From the sprint backlog, drag an item back to the backlog or to another sprint.



- If you need to move several items, you can create a query from the sprint backlog and then use the query to bulk modify the iteration path.

Or, you can increase the maximum number of allowed items.

Monitor sprint burndown

1/31/2019 • 6 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Throughout your sprint, you can monitor the sprint burndown chart to determine if your team is on track to complete its sprint plan.

Use this article to learn:

- How to view current and past sprint burndowns
- Required and recommended activities to support sprint burndown

For usage guidance, see Burndown guidance.

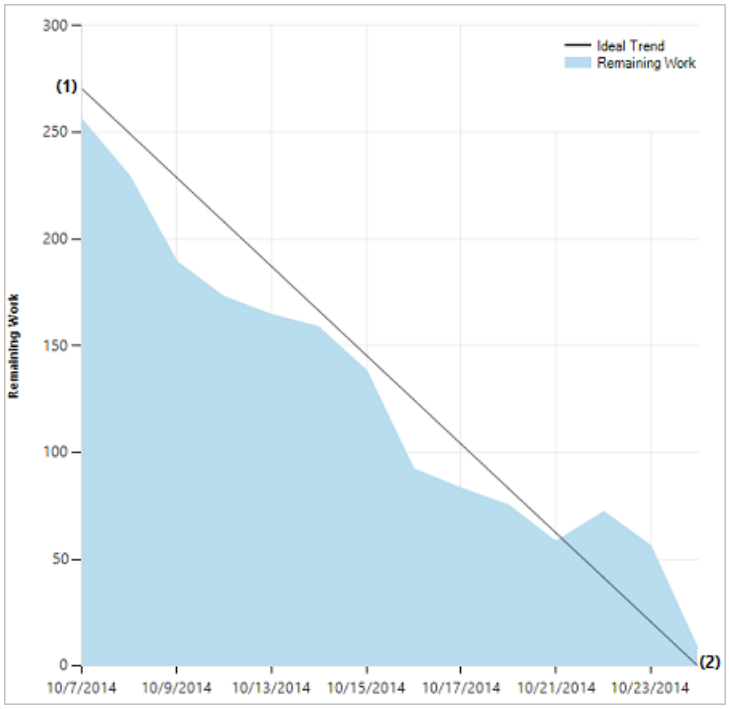
> **NOTE**
> The system automatically builds a sprint burndown chart based on the tasks and Remaining Work estimates you define and update throughout the sprint cycle. For details, see Sprint planning and taskboard. To open the sprint burndown chart, jump to the section Open sprint burndown chart.

A healthy sprint burndown chart will look something like this. The *Ideal Trend* line connects the two points:

- **(1)** Team's total capacity at the start of the sprint
- **(2)** 0 Remaining Work at the end of the sprint.

The slope represents the rate at which the team needs to burn down work to finish the sprint on time.

The actual graph, the blue area, represents the total amount of planned sprint work and how it changes throughout the course of the sprint. The blue area corresponds to the sum of all Remaining Work set for all sprint tasks, and possibly bugs, that have the current sprint as their iteration path.



Open the Sprint backlog for your team

> **NOTE**
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

NOTE

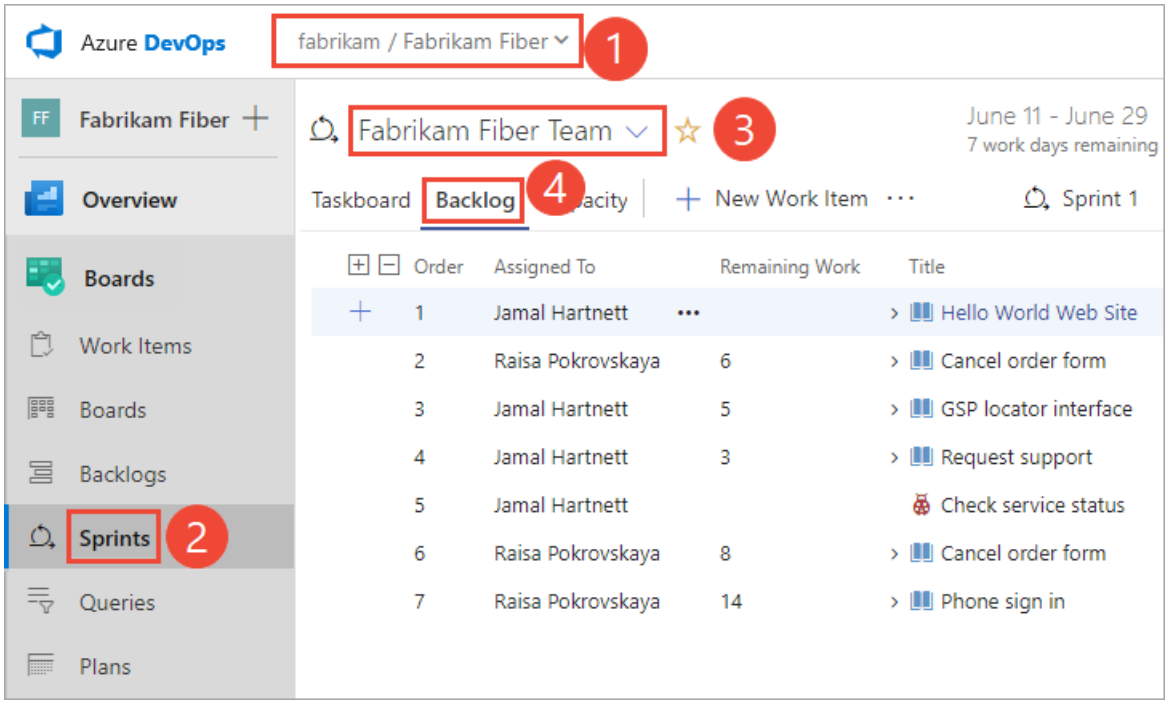
Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

NOTE

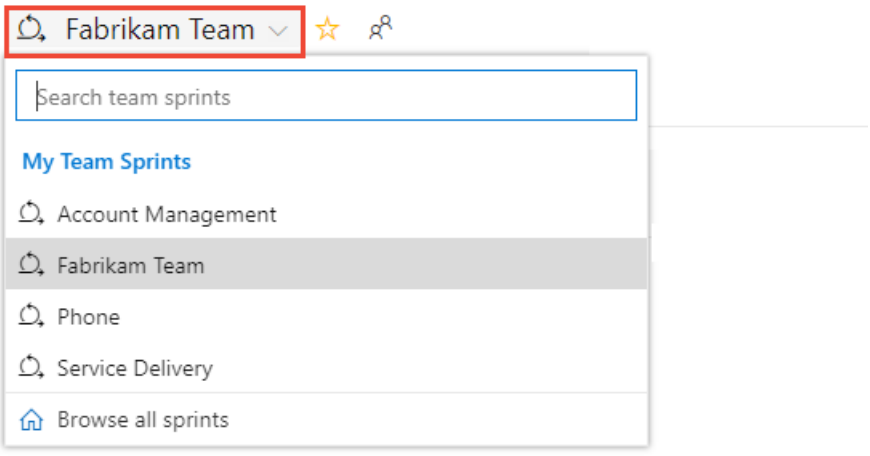
Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

- New navigation
- Previous navigation

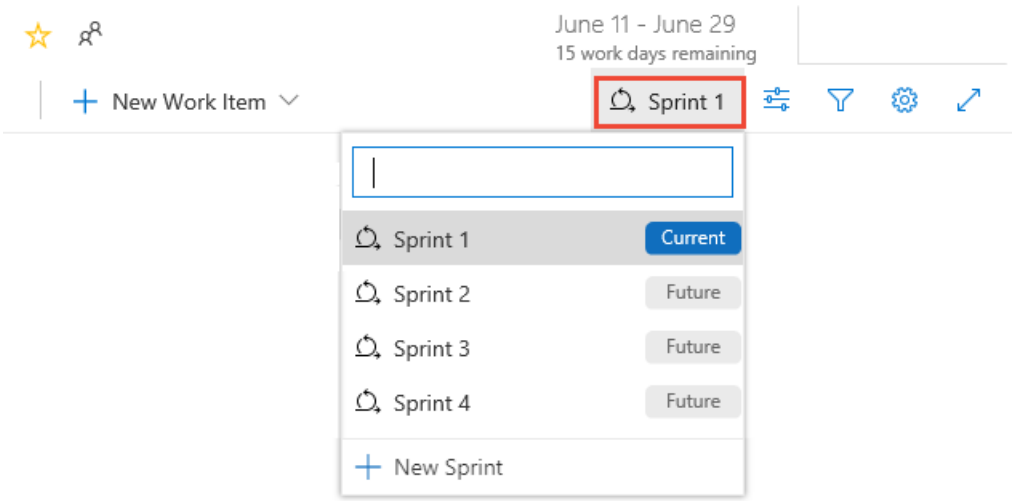
1. From your web browser, open your team's sprint backlog. (1) Check that you have selected the right project, (2) choose **Boards>Sprints**, (3) select the correct team from the team selector menu, and lastly (4), choose **Backlog**.

2. 

   To choose another team, open the selector and select a different team or choose the **Browse all sprints** option. Or, you can enter a keyword in the search box to filter the list of team backlogs for the project.



3. To choose a different sprint than the one shown, open the sprint selector and choose the sprint you want.



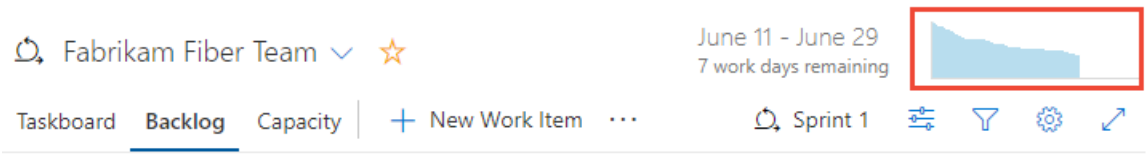
The system lists only those sprints that have been selected for the current team focus. If you don't see the sprints you want listed, then choose **New Sprint** from the menu, and then choose **Select existing iteration**. For details, see Define iteration paths (aka sprints).

Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Open the sprint burndown chart

Choose the chart to display it in a larger view.

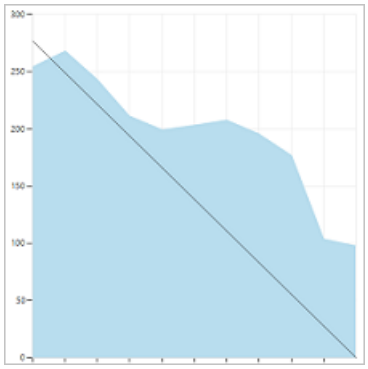
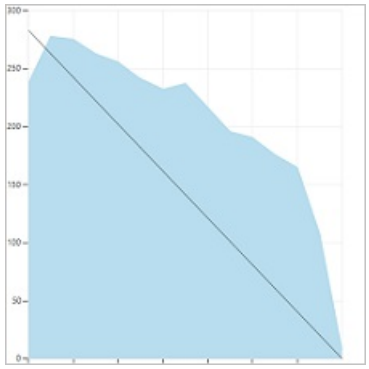
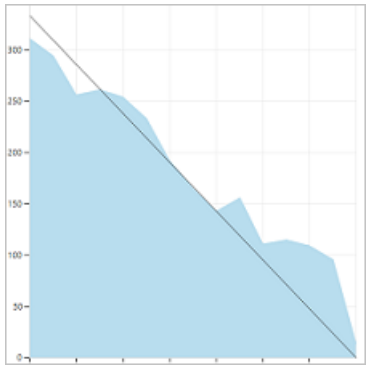
- New navigation
- Previous navigation



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

> **NOTE**
> You can't add the system-generated sprint burndown chart to a dashboard. However, you can add the Sprint burndown widget, which captures the same information for the current sprint, to a dashboard.

In particular you can review your sprint burndown charts to show the team patterns in execution. The burndown charts maintain a record of the team's ability to plan and estimate.

SPRINT 1	SPRINT 2	SPRINT 3
		

Teams may find it useful to review this record periodically during their sprint retrospectives. It may spark useful discussions and lead to setting one or more sprint goals, such as:

- How does our projected velocity match up to our actual velocity?
- How can we more accurately determine how much we will be able to accomplish in a sprint?
- How can we complete work at a more regular pace throughout the sprint?

Required and recommended activities

In order to access the sprint burndown chart and use it to monitor your sprint progress, your team must perform the following actions.

Required activities:

- Schedule sprints for your team.
- Define and estimate tasks for each product backlog item you're working on in the sprint. If you work from your team's backlog and taskboard, the items you create will automatically be assigned to the current sprint (Iteration) and to your team's default Area Path.
- Update Remaining Work for each sprint task as work progresses.

Recommended activities:

- Define tasks that take a day or less to complete to lessen the impact of poor estimates.
- Don't divide tasks into subtasks. If you divide a task into subtasks, specify hours only for the subtasks. These hours are rolled up as summary values for the parent task.
- Update Remaining Work daily or several times within a week to support monitoring and achieve a smoother burndown chart.
- At the end of the sprint, update the task status of completed tasks and determine how to handle incomplete tasks.

Empty sprint burndown chart

If your sprint burndown chart appears empty, check the following:

- Have you assigned tasks to the sprint associated with the chart?
- Have you assigned remaining work to the tasks assigned to the sprint?
- Are the parent work items of the tasks assigned to the same sprint? If not, the tasks may appear in another sprint associated with the parent item.

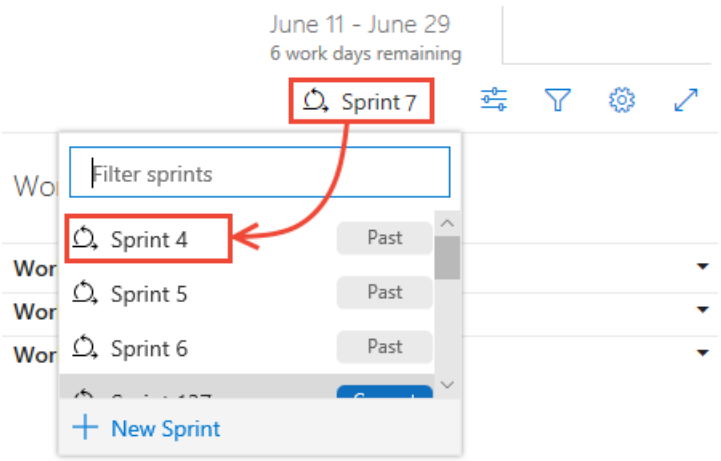
Current and past sprint burndown charts

As you complete each sprint, the system maintains a history of your activity.

- New navigation

- Previous navigation

To view a past sprint and its burndown chart, select the sprint from the Sprint selector.



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Try this next

In addition to the sprint burndown chart, teams can review the velocity at which they work sprint over sprint. The velocity chart tracks how many backlog items your team works on in a sprint.

You can use your team velocity as input into the forecast tool to help plan your sprints.

Related articles

You can learn more about defining, planning, and executing your sprints from these topics:

- Schedule sprints
- Sprint planning
- taskboard

And, from these industry resources:

- Understanding the Scrum Burndown Chart
- Task sizing in Agile software development

For on-premises deployments, you can specify the format that appears—**h** for hours or **d** for days—for the remaining work field.

Forecast your product backlog

1/31/2019 • 12 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Teams use the forecast tool to help in their sprint planning efforts. By plugging in a value for the team velocity, the forecast tool will show which items in the backlog can be completed within future sprints. Both tools are team-specific tools that rely on the team's ability to estimate backlog items. Once your team has completed a sprint or two, they can use the team velocity to forecast how much of the backlog they can finish within the upcoming sprints.

Use this article to learn:

- How to forecast upcoming sprints
- Required and recommended team activities to support forecasting

Prerequisites

- You must connect to a project. If you don't have a project yet, create one.
- You must be added to a project as a member of the **Contributors** security group. If you're not on a project or team, get added now.
- You must be granted **Basic** access or higher to use the forecast feature. For details, see About access levels.

> **NOTE**
> Users with **Stakeholder** access for a public project have full access to backlog and board features just like users with **Basic** access. For details, see About access levels.

- You must connect to a project. If you don't have a project yet, create one.
- You must be added to a project as a member of the **Contributors** security group. If you're not on a project or team, get added now.

- You must be granted **Basic** access or higher to add or modify work items. For details, see About access levels.

Required and recommended activities

Here's what you need to have in place before you attempt to forecast your team's backlog.

Required:

- Define iteration paths (aka sprints) and configure team iterations
  - Sprints should be of the same duration.
  - Select enough future sprints to forecast your entire product backlog.
- Define and estimate backlog items. If you work from your team's backlog, the items you create will automatically be assigned to the current sprint (Iteration) and to your team's default Area Path.
- Update the status of backlog items once work starts and when completed. Only backlog items whose State maps to a state category of *Proposed* or *In Progress* show up on the velocity chart. (for details, see Workflow states and state categories).

Recommended:

- Define and size backlog items to minimize variability.

- Determine how your team wants to treat bugs. If your team chooses to treat bugs like requirements, bugs will show up on the backlog and be counted within the Velocity chart and forecasting.
- Set your team's area path. The forecast tool will forecast those items based on your team's default settings. These settings can specify to include items in area paths under the team's default or exclude them.
- Don't create a hierarchy of backlog items and bugs. The Kanban board, sprint backlog, and taskboard only show the last node in a hierarchy, called the leaf node. For example, if you link items within a hierarchy that is four levels deep, only the items at the fourth level appear on the Kanban board, sprint backlog, and taskboard. Instead of nesting requirements, bugs, and tasks, we recommend that you maintain a flat list—only creating parent-child links one level deep between items. Use Features to group requirements or user stories. You can quickly map stories to features, which creates parent-child links in the background.
- At the end of the sprint, update the status of those backlog items that the team has fully completed. Incomplete items should be moved back to the product backlog and considered in a future sprint planning meeting.

> **NOTE**
> If you work with several teams, and each team wants to work with their own backlog, velocity chart, and forecast tool, you can create additional teams. Each team then gets access to their own set of Agile tools. Each Agile tool filters work items to only include those whose assigned area paths and iteration paths meet those set for the team.

Forecast upcoming sprints

You can use the forecast tool to get an idea of how many items you can complete within a sprint. By plugging in a velocity, you can see which items are within scope for the set of sprints the team has activated.

> **NOTE**
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

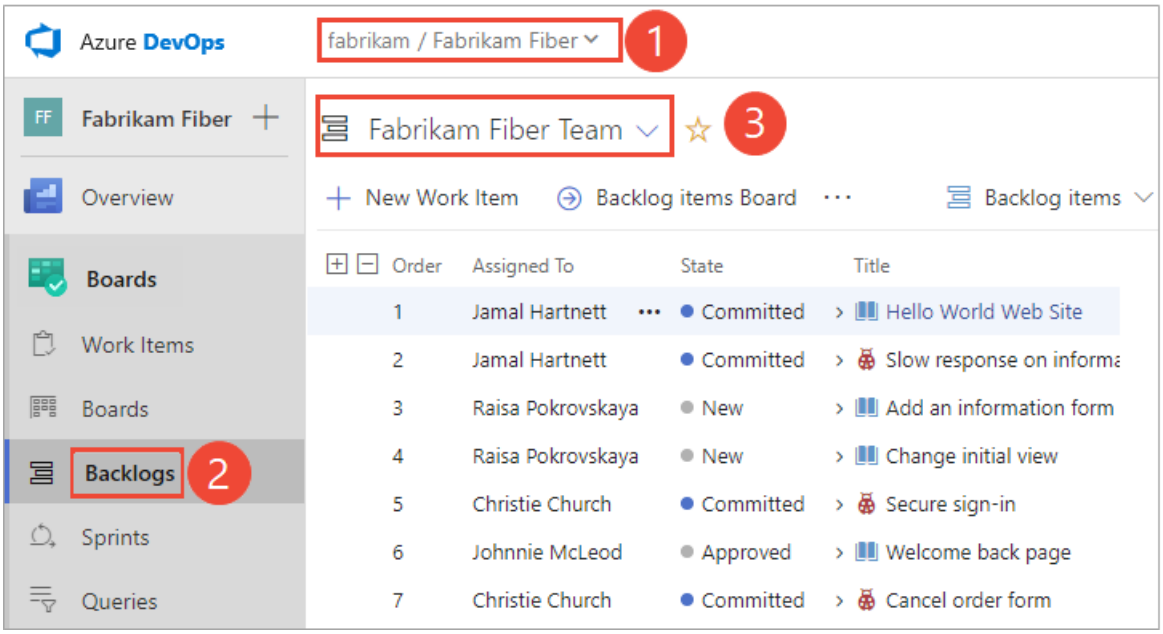
> **NOTE**
> Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

> **NOTE**
> Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

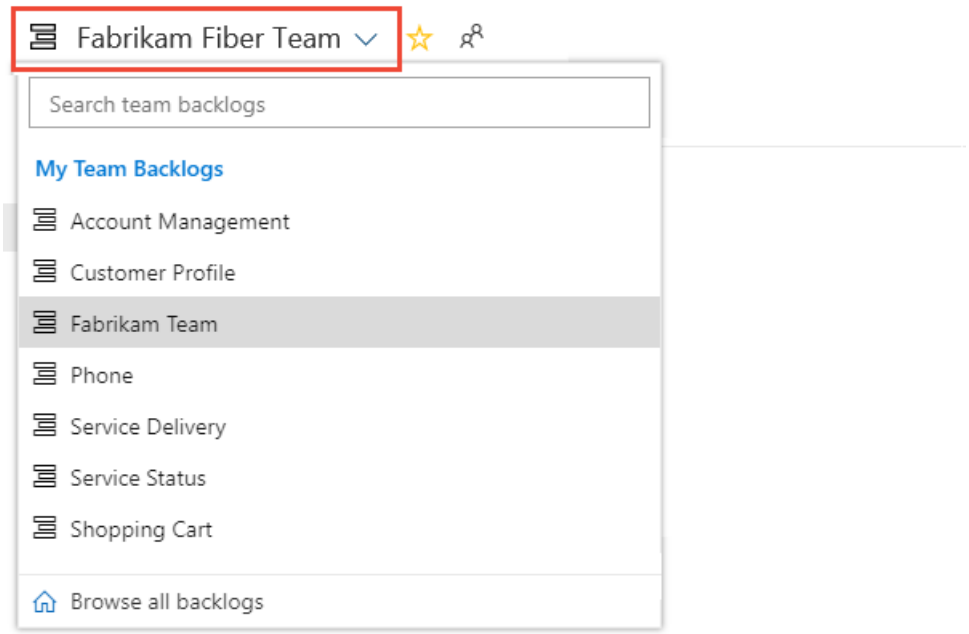
To forecast your product backlog, perform the following actions.

- New navigation
- Previous navigation

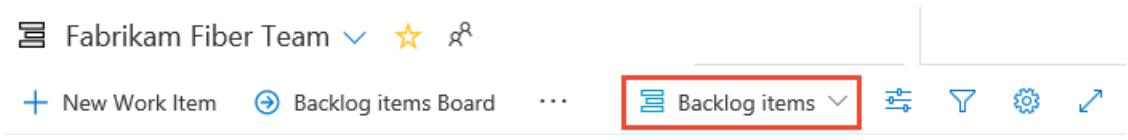
1. From your web browser, open your product backlog. (1) Check that you have selected the right project, (2) choose **Boards>Backlogs**, and then (3) select the correct team from the team selector menu.



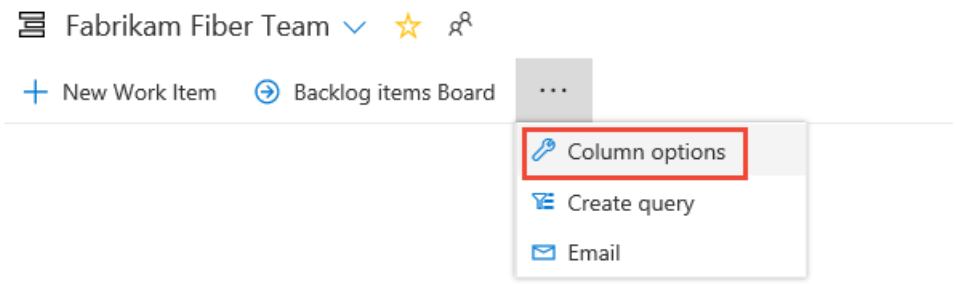
To choose another team, open the selector and select a different team or choose the **Browse all team backlogs** option. Or, you can enter a keyword in the search box to filter the list of team backlogs for the project.



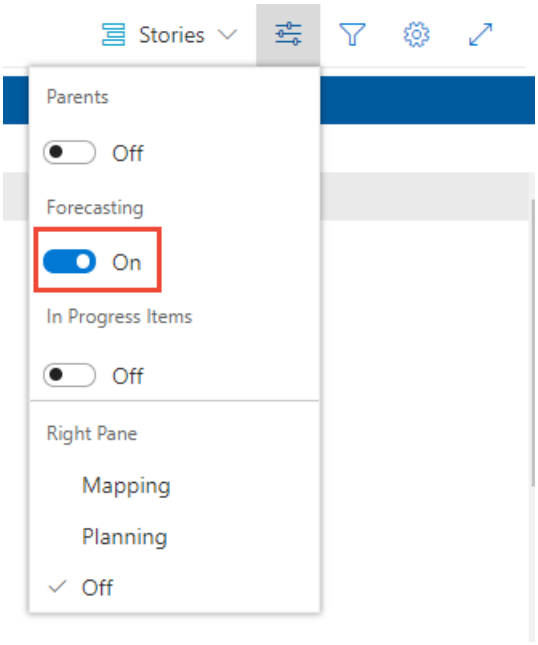
2. Check that you have selected **Backlog items** (for Scrum), **Stories** (for Agile), or **Requirements** (for CMMI) as the backlog level. You can only forecast a product backlog. You can't forecast a portfolio backlog such as Features or Epics.



3. (Optional) To choose which columns should display and in what order, choose the ··· actions icon and select **Column options**. You may want to add the Iteration Path to the set of columns that appear on your backlog. To learn more, see Change column options.

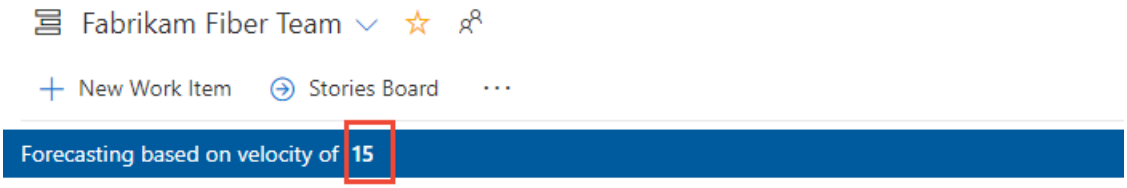


4. Choose the view options icon and slide **Forecasting** to **On**. To keep things simple, turn the **Mapping** and **Planning** panes **Off**.



Set **In Progress Items** to **Off** to hide those items that won't be counted in the forecast. The forecast tool ignores Scrum items set to *Committed* or *Done* and Agile and CMMI items set to *Active*, *Resolved*, or *Completed*.

5. Enter your team's predicted velocity. If the **Forecasting** bar doesn't appear.



> **TIP**
> If your team has been working for several sprints, you can gain an idea of your team's velocity from the Velocity widget.

The tool draws lines for each future sprint selected by the team. The Forecast lines show how much work your team should be able to complete in future sprints. Typically, items above the first line are already in progress for the current sprint. Items that fall between the first and second forecast lines indicate what can be completed in the named sprint.

Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Review the forecast results

- Check the results manually to understand discrepancies in what you expect and what the forecast tool displays.
- Check the amount of effort (Effort, Story Points, or Size) forecasted per sprint.
- Question forecast results where the effort of an item is near to, or greater than, team velocity.

In this example, a Velocity of 20 is used. The forecast tool limits the number of items shown between the forecast lines to those that can be completed within the sprint or using unused velocity points from the previous sprint.

The forecast tool shows between two and four items can be worked on during Iterations 2 through 6 based on the amount of Story Points assigned to each user story or bug. The forecast logic carries over velocity points from one sprint to the next.

- **Iteration 2**: 13 Story Points, items 1 and 2 can be completed; 7 velocity points are carried over to the next sprint
- **Iteration 3**: 24 Story Points, items 3 through 5 can be completed; 3 (=20+7-24) velocity points are carried over to the next sprint
- **Iteration 4**: 21 Story points, items 6 through 8 can be completed; 2 (=20+3-21) velocity points are carried over to the next sprint
- **Iteration 5**: 16 Story points, items 9 through 12 can be completed; 6 (=20+2-16) velocity points are carried over to the next sprint
- **Iteration 6**: 23 Story points, items 13 through 16 can be completed; 3 (=20+6-23) velocity points are carried over to the next sprint

Forecasting based on velocity of **20**

Forecast	Order	Work Item Type	State	Story ...	Title
+	1	User Story	New	8	Hello World Web Site
Iteration 2	2	User Story	New	5	Research architecture changes
	3	User Story	New	8	Phone sign in
	4	User Story	New	8	Interim save on long form
Iteration 3	5	User Story	New	8	Request support
	6	Bug	New	8	Slow response on the form
	7	User Story	New	8	Add info form
	8	User Story	New	5	Change initial view
Iteration 4		Task	New		Design doc
	9	Bug	New	5	Secure sign-in
	10	User Story	New	3	Welcome back
	11	User Story	New	3	Resume
Iteration 5	12	User Story	New	5	Switch context issues
	13	User Story	New	8	Locator interface
	14	User Story	New	8	Check service status
	15	User Story	New	3	Pause
Iteration 6	16	User Story	New	4	Resolve sign-in issues

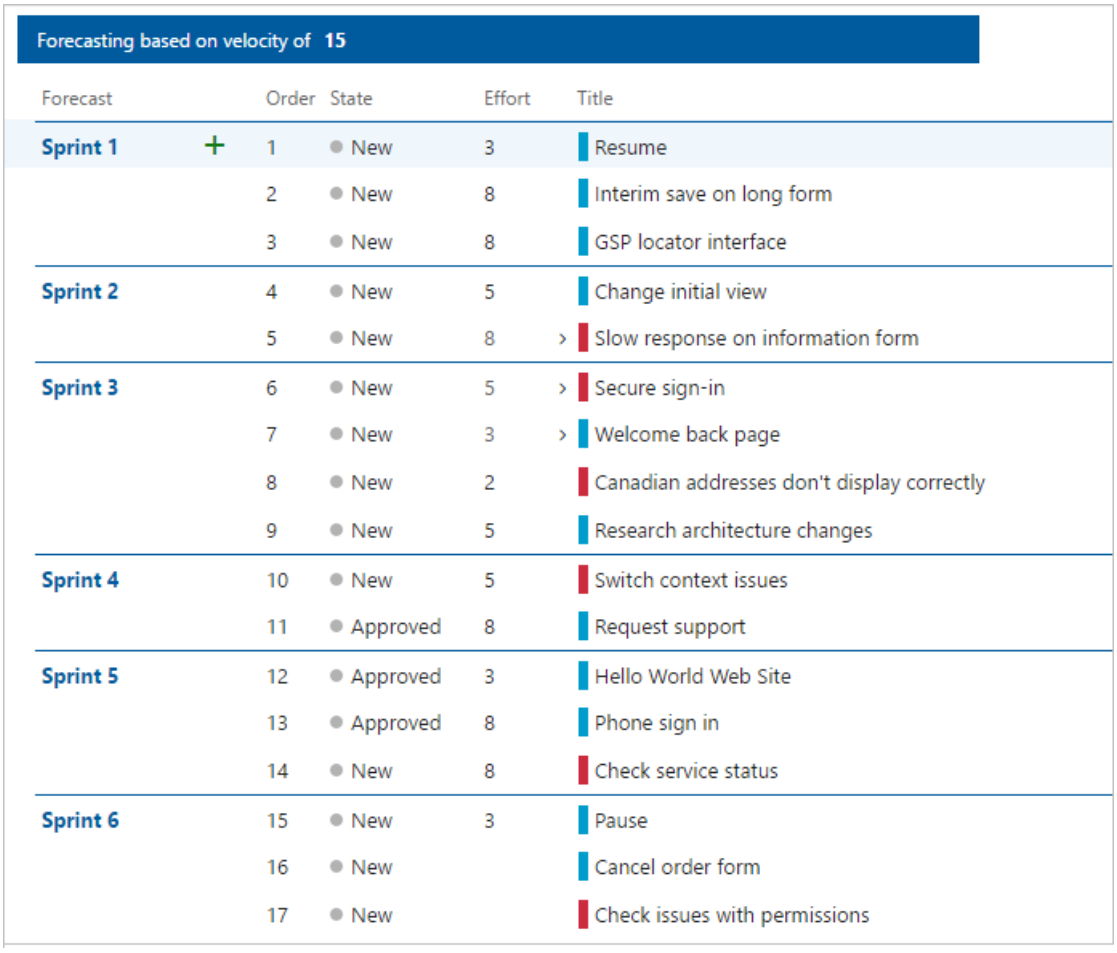
NOTE

The forecast logic changed for TFS 2017.2. Previously, the forecast tool limited the number of items shown between the forecast lines to those that could be completed within the sprint or using unused velocity points from the previous sprint.

Now, all items listed between the lines can be started in the sprint labeled by the first line, but may not be completed within the sprint. The amount of effort (Effort, Story Points, Size) that can't be completed in one sprint are carried over to the next sprint. For example, for a velocity of 15, if Item 1 has 35 Effort points, 20 Effort points are carried over to next sprint, then again 5 Effort points are carried over to the sprint after that.

In this example, a Velocity of 15 is used. The forecast tool shows between two and four items can be started or completed during the first six sprints based on the amount of Effort assigned to each work item. The forecast logic carries over effort points from one sprint to the next.

- **Sprint 1**: 19 Effort points, items 1 and 2 can be completed and item 3 can be started; 4 Effort points are carried over into the next sprint.
- **Sprint 2**: 13 Effort points, item 3 from the previous sprint can be completed, item 4 can be completed, and item 5 can be started; 2 Effort points are carried over into the next sprint.
- **Sprint 3**: 15 Effort points, item 5 from the previous sprint and items 6 through 8 can be completed, and item 9 can be started; 2 Effort points are carried over into the next sprint.
- **Sprint 4**: 13 Effort points, item 9 from the previous sprint and items 10 and 11 can be completed; no Effort points are carried over into the next sprint.
- **Sprint 5**: 19 Effort points, items 12 and 13 can be completed and item 14 can be started; 4 Effort points are carried over into the next sprint.



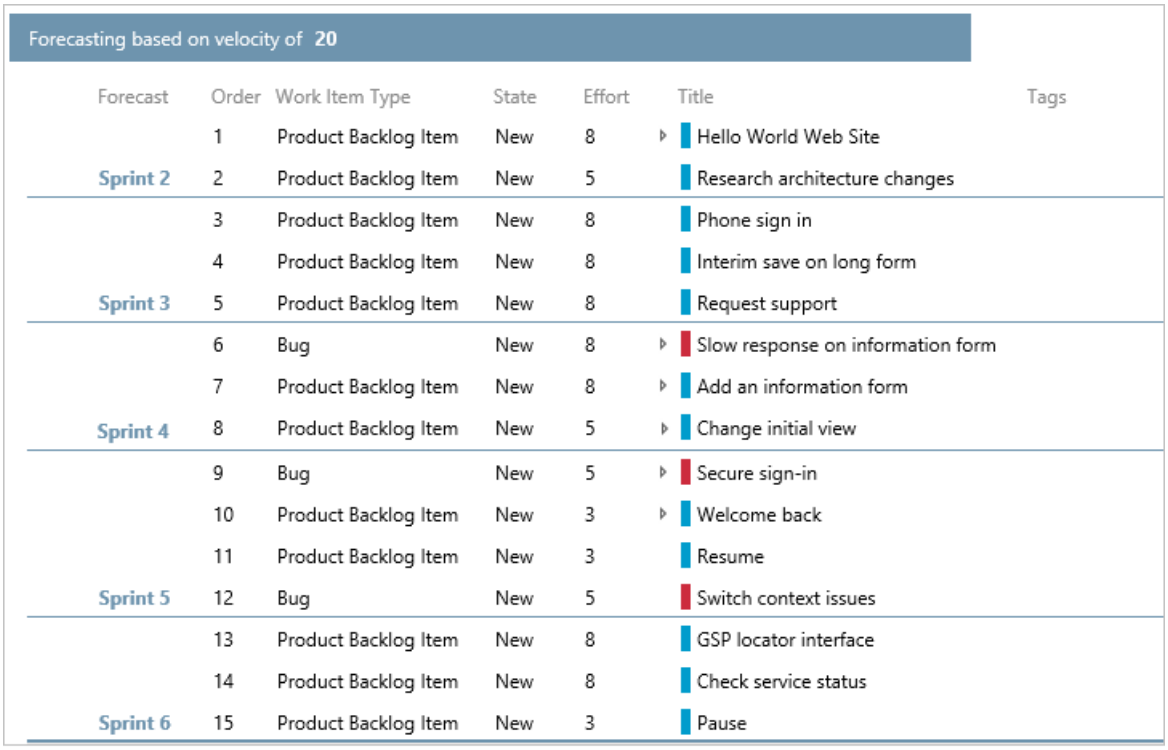
Forecast	Order	State	Effort	Title
Sprint 1	1	New	3	Resume
	2	New	8	Interim save on long form
	3	New	8	GSP locator interface
Sprint 2	4	New	5	Change initial view
	5	New	8	Slow response on information form
Sprint 3	6	New	5	Secure sign-in
	7	New	3	Welcome back page
	8	New	2	Canadian addresses don't display correctly
	9	New	5	Research architecture changes
Sprint 4	10	New	5	Switch context issues
	11	Approved	8	Request support
Sprint 5	12	Approved	3	Hello World Web Site
	13	Approved	8	Phone sign in
	14	New	8	Check service status
Sprint 6	15	New	3	Pause
	16	New		Cancel order form
	17	New		Check issues with permissions

The forecast tool shows only those work items that can be completed within a sprint between the forecast lines. Unused velocity points from one sprint are considered in the forecast of the following sprint. The forecasted sprint is listed along with the last item that can be completed during that sprint.

In this example, a velocity of 20 is used. The first two items with a total of 13 Effort points can be completed in Sprint 2.

In summary:

- **Sprint 2**: 13 Effort points, items 1 and 2 can be completed; 7 velocity points are carried over to the next sprint
- **Sprint 3**: 24 Effort points, items 3 through 5 can be completed; 3 (=20+7-24) velocity points are carried over to the next sprint
- **Sprint 4**: 21 Effort points, items 6 through 8 can be completed; 2 (=20+3-21) velocity points are carried over to the next sprint
- **Sprint 5**: 16 Effort points, items 9 through 12 can be completed; 6 (=20+2-16) velocity points are carried over to the next sprint
- **Sprint 6**: 19 Effort points, items 13 through 15 can be completed; 3 (=20+6-23) velocity points are carried over to the next sprint



Forecast	Order	Work Item Type	State	Effort	Title	Tags
	1	Product Backlog Item	New	8	Hello World Web Site	
Sprint 2	2	Product Backlog Item	New	5	Research architecture changes	
	3	Product Backlog Item	New	8	Phone sign in	
	4	Product Backlog Item	New	8	Interim save on long form	
Sprint 3	5	Product Backlog Item	New	8	Request support	
	6	Bug	New	8	Slow response on information form	
	7	Product Backlog Item	New	8	Add an information form	
Sprint 4	8	Product Backlog Item	New	5	Change initial view	
	9	Bug	New	5	Secure sign-in	
	10	Product Backlog Item	New	3	Welcome back	
	11	Product Backlog Item	New	3	Resume	
Sprint 5	12	Bug	New	5	Switch context issues	
	13	Product Backlog Item	New	8	GSP locator interface	
	14	Product Backlog Item	New	8	Check service status	
Sprint 6	15	Product Backlog Item	New	3	Pause	

Determine the velocity needed to complete all items in the backlog

Another way to use the forecast tool is to enter different velocity values until all the backlog items are completed within a given set of sprints. This provides an estimate of what velocity is required to complete your backlog of items.

You can then assess the delta between the current team's velocity and the required velocity to determine what additional resources are required to meet production demands within a required time.

Try this next

Now that you understand how to work with forecasting, you can use this tool to support your team's sprint planning activities.

Related articles

- Team velocity
- Define iteration paths (aka sprints) and configure team iterations
- Use the taskboard to track work during your sprint

- Monitor the sprint burndown chart to determine if your team is on track to complete the sprint plan

Scrum and best practices

1/25/2019 • 12 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Sprint planning meetings

Much of sprint planning involves a negotiation between the product owner and the team to determine the focus and work to tackle in the upcoming sprint. It's useful to time-box the planning meeting, restricting it to 4 hours or less.

In the first part of the meeting, your product owner meets with your team to discuss the user stories that might be included in the sprint. Your product owner will share information and answer any questions that your team has about those stories. This conversation might reveal details such as data sources, user interface layout, response time expectations, and considerations for security and usability. Your team should capture these details within the backlog items form. During this part of the meeting, your team learns what it must build.

As you plan your sprints, you may discover additional requirements that you should capture and add to your backlog. Before your sprint planning meeting, you'll want to refine your backlog to make sure that it is well defined and in priority order.

Also, setting a sprint goal as part of your planning efforts can help the team stay focused on what's most important for each sprint.

After you've planned your sprint, you may want to share the plan with key stakeholders.

You can learn more from these resources:

- What is Scrum?
- Sprint planning white paper
- The Scrum Guide
- Build and manage the product backlog white paper

Set sprint goals

Scrum teams use sprint goals to focus their sprint activities. They often set this goal during their sprint planning meeting. The goal summarizes what the team wants to accomplish by the end of the sprint. By explicitly stating the goal, you create shared understanding within the team of the core objective. The sprint goal can also help guide the team when conflicts arise around priorities.

Tips from the trenches: Define sprint goals

The sprint goal defines what the product owner and the team consider as the ultimate target to accomplish that sprint. It's not a random selection of backlog items that don't really have a relationship, but a short piece of text that captures what the team should try to accomplish. Normally the product owner comes up with the sprint goal before selecting a number of items for the next sprint. The items for that sprint should all fit that common goal.

Sprint goals can be feature oriented, but might also have a large process component such as deployment automation or test automation.

For example:

- This sprint we will focus on a very simple user story and we will use it to prove that the proposed solution will

work.

- This sprint will revolve around implementing the security features that will properly secure the administration section of the website.
- This sprint will be about integrating the most important payment gateways so that we can start collecting money.

Setting the sprint goals helps the team to stay focused. It will make it easier to define priority of tasks within a sprint and it will probably help limit the number of stakeholders and end-users that are involved.

During the sprint review the most important question you should ask yourself is whether you managed to achieve the sprint goal. How many stories you actually completed comes second. If the goal is accomplished, the sprint succeeds, even if not all stories were finished.

Contributed by Jesse Houwing, Visual Studio devops Ranger and a senior consultant working for Avanade Netherlands.

Tips for successful triage meetings

Fixing bugs represents a trade-off with regards to other work. Use your triage meeting to determine how important fixing each bug is against other priorities related to meeting the project scope, budget, and schedule.

- Establish the team's criteria for evaluating which bugs to fix and how to assign priority and severity. Bugs associated with features of significant value (or significant opportunity cost of delay), or other project risks, should be assigned higher priority and severity. Store your triage criteria with other team documents and update as needed.
- Use your triage criteria to determine which bugs to fix and how to set their State, Priority, Severity, and other fields.
- Adjust your triage criteria based on where you are in your development cycle. Early on, you may decide to fix most of the bugs that you triage. However, later in the cycle, you may raise the triage criteria (or bug bar) to reduce the number of bugs that you need to fix.
- Once you've triaged and prioritized a bug, assign it to a developer for further investigation and to determine how to implement a fix.

Manage your technical debt

Consider managing your bug bar and technical debt as part of your team's overall set of continuous improvement activities. You may find these additional resources of interest:

- Good and Bad Technical Debt (and how TDD helps) by Henrik Kniberg
- Managing Technical Debt posted by Sven Johann & Eberhard Wolff

Tips from the trenches: Agile Bug Management: Not an Oxymoron

by Gregg Boer, Principal Program Manager, Visual Studio Cloud Services at Microsoft

Every Sprint, Address any Known Bug Debt

Every sprint, the team looks at any bugs remaining in the bug backlog and allocates capacity to get that known set of bugs down to zero, or near-zero. Whether this is one day, one week or the entire sprint, they fix the bugs first. Bugs found later, within the sprint, are not considered part of that initial commitment. Unless they're very high priority, they're put on the bug backlog for the next sprint.

Many teams work in a commitment-based organization, where management places a high value on a team's ability to meet their commitments. Doing capacity planning against a known set of bugs makes sprint planning more deterministic, increasing their chance to meet commitments. Any new bugs discovered during the sprint are not a part of the initial commitment, and will be tackled next sprint.>

Managing Bug Debt across an Enterprise

An organization transitioning to a culture where debt is continually eliminated likely is dealing with the following question: How do you get teams to reduce their bug count without telling them exactly what to do? Leadership wants the team to change, yet gives the team autonomy to determine how they change. One option is to use a bug cap.

For example, consider a bug cap of three bugs per engineer. This means a team of 10 people should not have more than 30 bugs in its bug backlog. If the team is over its cap, it's expected to stop work on new features and get under the bug cap. A team is expected to be under its cap at all times, but the team decides how it wants to do that. The bug cap ensures that bug debt is never carried for too long, and the team can learn from the mistakes that causes the bugs to be injected in the first place.

Remember that the bug cap represents the bugs in the bug backlog. It does not include bugs found and fixed within the sprint in which a feature is developed. Those bugs are considered undone work, not debt.

While bugs contribute to technical debt, they may not represent all debt.

Poor software design, poorly written code, or short-term fixes in place of best, well-designed solutions can all contribute to technical debt. Technical debt reflects extra development work that arises from all these problems.

You need to track work to address technical debt as PBIs, user stories, or bugs. To track a team's progress in incurring and addressing technical debt, you'll want to consider how to categorize the work item and the details you want to track. You can add tags to any work item to group it into a category of your choosing.

Role of the Scrum Master

Scrum Masters help build and maintain healthy teams by employing Scrum processes. They guide, coach, teach, and assist Scrum teams in the proper employment of Scrum methods. Scrum Masters also act as change agents to help teams overcome impediments and to drive the team toward significant productivity increases.

Core responsibilities of Scrum Masters include:

- Support the team to adopt and follow Scrum processes. For example, you should not let the daily Scrum meeting become an open discussion that lasts 45 minutes.
- Guard against the product owner or team members from adding work after the sprint begins.
- Clear blocking issues that prevent the team from making forward progress. This might require you to perform small tasks, such as approving a purchase order for a new build computer or resolving a conflict within your team.
- Help the team work to resolve conflicts and issues that arise and learn from the process.
- Ask questions that reveal hidden issues and confirm that what people are communicating is well understood by the entire team.
- Identify and safeguard the team from potential issues becoming major issues. Just as it's cheaper to fix a bug soon after it's discovered, it's also easier and less disruptive to fix a team issue when it's small and manageable.
- Prevent the team from presenting incomplete user stories during a sprint review meeting.
- Gather, analyze, and present data to business stakeholders in a way that demonstrates how the team is improving and growing. For example, if your team has significantly increased the amount of value that it has delivered while generating fewer bugs, make the value visible through regular communications to business stakeholders.

Good Scrum Masters possess or develop excellent communication, negotiation, and conflict resolution skills. They actively listen to not only the words that people say and write but also how they deliver their messages (their body language, facial expressions, vocal pace, and other nonverbal communication).

Just as it's cheaper to fix a bug soon after it's discovered, it's also easier and less disruptive to fix a team issue when

it's small and manageable before it grows into a major issue.

Daily Scrum meetings

Daily Scrum meetings help keep a team focused on what it needs to do the next day to maximize the team's ability to meet its sprint commitments. Your Scrum Master should enforce the structure of the meeting and ensure that it starts on time and finishes in 15 minutes or less.

Three aspects of successful Scrum meetings are:

- Everyone stands up (this helps to keep the meetings focused and short)
- They start and end on time and occur at the same time in the same location each day
- Everyone participates, each team member answers the three Scrum questions:
  - *What have I accomplished since the most recent Scrum?*
  - *What will I accomplish before the next Scrum?*
  - *What blocking issues or impediments might affect my work?*

Team members should strive to answer their questions quickly and concisely. For example:

> "*Yesterday, I updated the class to reflect the new data element that we pull from the database, and I got it to appear in the interface. This task is complete. Today, I will ensure that the new data element is correctly calculating with the stored procedure and the other data elements in the table. I believe I will accomplish this task today. I will need someone to review my calculations. I have no impediments or blocking issues.*"

This response conveys what was accomplished, what will be accomplished, and that the team member would like some help looking at the code.

Contrast with this next example:

> "*Yesterday, I worked on the class, and it works. Today, I will work on the interface. No blocking issues.*"

Here, the team member doesn't provide enough detail about what class they worked on nor which interface components they'll complete. In fact, the word accomplished never came up.

It's important that no one interrupts during report outs. Each person must have sufficient time to answer the three questions.

More in-depth and follow-up discussions should take place after the meeting, as people return to their desks or, if a significant amount of conversation is necessary, in a follow-up meeting.

Many teams delay discussions by using the "virtual parking lot" method. As topics come up that a team member believes warrants further discussion, they can quietly walk to a whiteboard or flipchart and list the topic in the parking lot. At the end of the meeting, the team determines how they'll handle the listed items.

Sprint review meetings

Conduct your sprint review meetings on the last day of the sprint. Your team demonstrates each product backlog item that it completed in the sprint. The product owner, customers, and stakeholders accept the user stories that meet their expectations and identify any new requirements. Customers often understand their additional needs more fully after seeing the demonstrations and may identify changes that they want to see.

Based on this meeting, some user stories will be accepted as complete. Incomplete user stories will remain in the product backlog, and new user stories will be added to the backlog. Both sets of stories will be ranked and either estimated or re-estimated in the next sprint planning meeting.

After this meeting and the retrospective meeting, your team will plan the next sprint. Because business needs

change quickly, you can take advantage of this meeting with your product owner, customers, and stakeholders to review the priorities of the product backlog again.

Sprint retrospective meetings

Retrospectives, when conducted well and at regular intervals, support continuous improvement.

The sprint retrospective meeting typically occurs on the last day of the sprint, after the sprint review meeting. In this meeting, your team explores its execution of Scrum and what might need tweaking.

Based on discussions, your team might decide to change one or more processes to improve its own effectiveness, productivity, quality, and satisfaction. This meeting and the resulting improvements are critical to the agile principle of self-organization.

Look to address these areas during your team sprint retrospectives:

- Issues that affected your team's general effectiveness, productivity, and quality.
- Elements that impacted your team's overall satisfaction and project flow.
- What happened to cause incomplete backlog items? What actions will the team take to prevent these issues in the future?

  For example, consider a team that had several tasks that only one individual on the team could perform. The isolated expertise created a critical path that threatened the sprint's success. The individual team member put in extra hours while other team members were frustrated that they could not do more to help. Going forward, the team decided to practice eXtreme Programming to help correct this problem over time.

As a team, work to determine whether to adapt one or more processes to minimize the occurrence of problems during the sprint.

In some cases, your team may need to do some work to implement an improvement. For example, a team that found themselves negatively impacted by too many failed builds decided to implement continuous integration. Because they didn't want to disrupt process, they allocated a few hours to set up a trial build before turning it on in their production build. To represent this work, they created a spike and prioritized that work against the rest of the product backlog.

Related articles

- What is Scrum?
- Agile Retrospectives: Making Good Teams Great

Sprints and Scrum key concepts

1/31/2019 • 9 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

This article provides a short dictionary of terms and available tools used in tracking work using Sprints and Scrum methods. See also:

- Agile glossary
- Work item field index
- Project management and navigation glossary

Agile tools

A suite of web-based tools used to track work and support Agile methodologies. Agile tools support the core Agile methods—Scrum and Kanban—used by software development teams today. Learn more: About Agile tools and Agile project management.

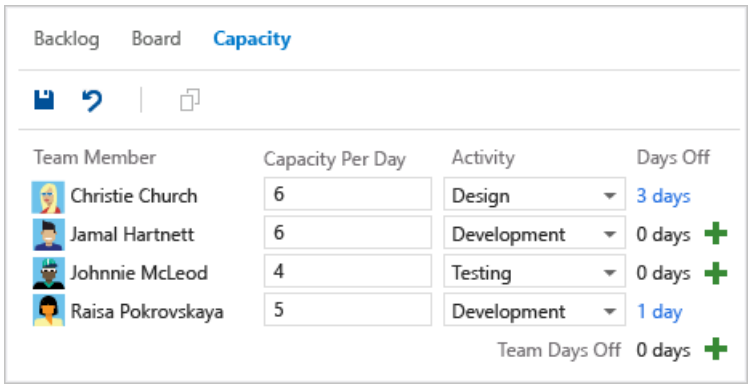
Bugs

A type of work item that records a potential source of dissatisfaction with the product. The common name of a work item type for tracking code defects. Each team can choose how they want to manage bugs. Some teams like to track bugs along with requirements on the backlog. Other teams like to track bugs as tasks performed in support of a requirement. The bugs then appear on their Taskboard. Learn more: Manage bugs.

Capacity

Capacity correlates to actual task time, either hours or days, that an individual or a team has to work. Azure DevOps provides a Capacity tool for each team's sprint to set capacity. Teams typically set capacity when they plan to create tasks and estimate the time it takes to complete a task.

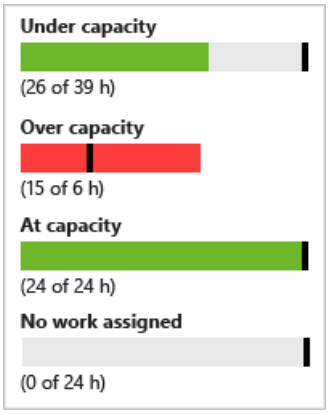
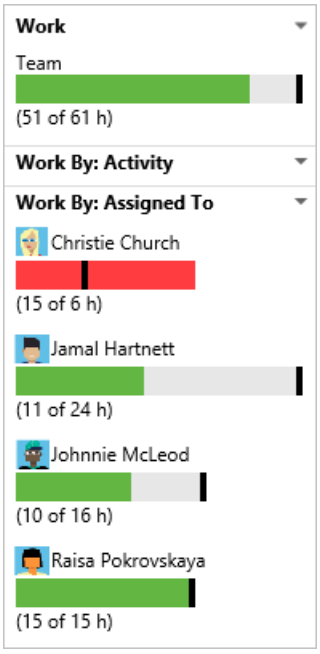
By setting team capacity, the team knows exactly the total number of work hours or days the team has for each sprint. With this tool, you set individual team member capacity as well as days off. Setting capacity for each team member working during a sprint causes the capacity bar for that individual to appear. Learn more: Set sprint capacity.



Capacity bars

With capacity bars, you can quickly see who is over, at, or under capacity. Capacity bars update with each of these activities:

- Tasks are assigned with non-zero remaining work
- Change in remaining work
- Date change within the sprint cycle. Individual and team capacity always reflects their capacity from the current day till the end of the sprint.

CAPACITY COLORS	CAPACITY BARS
	

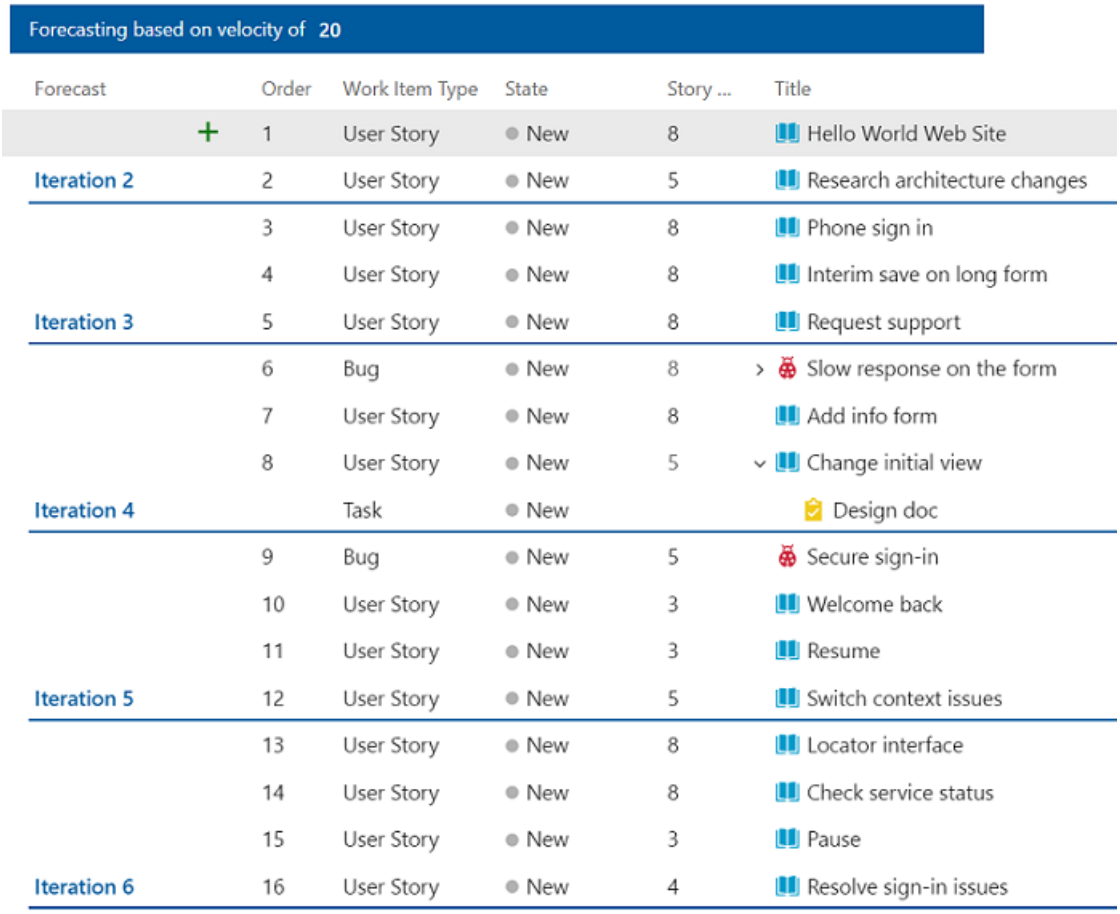
Learn more: Adjust work to fit sprint capacity.

Daily scrum meetings

Daily Scrum meetings help teams stay focused on what they need to do to maximize their ability to meet their sprint commitments. The team's Scrum Master should enforce the structure of the meeting and ensure that it starts on time and finishes in 15 minutes or less. Learn more: Scrum best practices, Daily scrum meeting.

Forecast

The forecast tool helps team plan their sprints by showing them the backlog items that can be completed in future sprints based on work item estimates and a set velocity. As shown here, a velocity of 20 indicates that it will take five sprints to complete the work shown. Learn more: Forecast your product backlog.



Issues or impediments

A type of work item that helps track unplanned activities. Resolving an issue or impediment requires more work beyond what was scheduled based on actual requirements. Using the issue (Agile or CMMI process) or impediment (Scrum process) work item type helps you track and manage these issues until you can resolve and close them. Learn more: Manage issues and impediments.

Iteration paths (aka sprints)

A time period, usually two to three weeks, used to group work items to be completed during that time period. Sprints are used in Scrum methods to support sprint planning, sprint burndown, and other Scrum processes. Iteration paths allow you to group work into sprints, milestones, or other event-specific or time-related period. Learn more: About area and iteration paths.

Product backlog

An interactive list of work items that corresponds to a team's project plan or roadmap for what the team plans to deliver. The product backlog supports prioritizing work, forecasting work by sprints, and quickly linking work to portfolio backlog items. You can define your backlog items and then manage their status using the Kanban board.

Each product backlog can be customized by a team. Learn more: Create your backlog.

Product backlog item

A type of work item that defines the applications, requirements, and elements that teams plan to create. Product owners typically define and stack rank product backlog items which are defined with the Scrum process. Learn more: Scrum process work item types and workflow.

Product owner role

The role of product owners is to act as the interface between customers and the team. A product owner can reduce the need for detailed specifications by being more responsive to the team's questions about implementation details and clearly articulating acceptance criteria within each requirement. Learn more: Refine your backlog, Role of the product owner.

Scrum master role

Scrum Masters help build and maintain healthy teams by employing Scrum processes. They guide, coach, teach, and assist Scrum teams in the proper employment of Scrum methods. Scrum Masters also act as change agents to help teams overcome impediments and to drive the team toward significant productivity increases. Learn more: Scrum best practices, Role of the Scrum Master.

Sprints (also known as iterations)

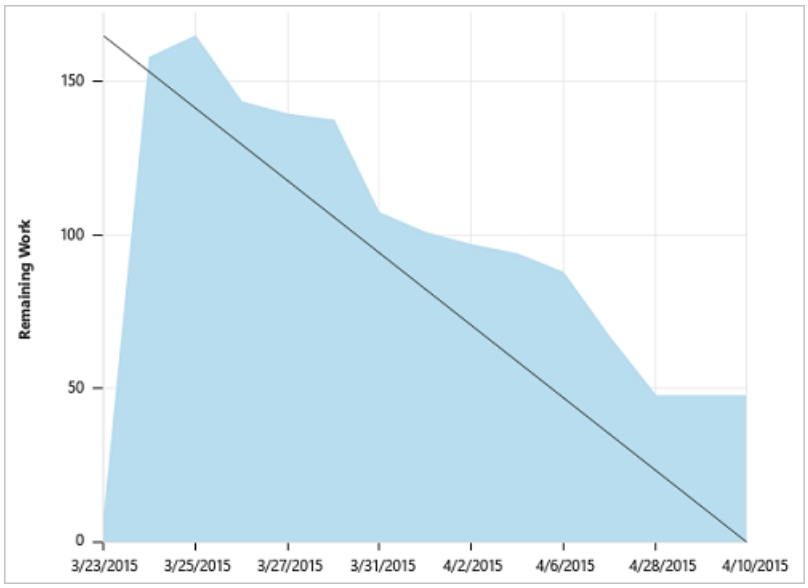
A sprint is a time period of usually two to three weeks that's used to group work items to be completed during that time period. Sprints are used in Scrum methods to support sprint planning, sprint burndown, and other Scrum processes. Sprints are defined via iteration paths. To learn more, see About area and iteration paths (aka sprints).

Sprint backlog

An interactive list of work items that have been assigned to the same sprint or iteration path for a team. The sprint backlog supports teams that use Scrum methodologies. Learn more: Sprint planning.

Sprint burndown chart

The sprint burndown chart reflects the progress made by a team in completing all the work they estimated during their sprint planning meeting. Team's monitor it to mitigate risk and check for scope creep throughout their sprint cycle. The ideal trend line always indicates a smooth and steady burndown. The blue area, as shown in the following chart, represents what's actually going on. It shows the buildup of work as team members add tasks and the reduction of work as team members complete those tasks. Learn more: Monitor sprint burndown.



Sprint goals

Sprint goals are used to focus sprint activities. The goal summarizes what the team wants to accomplish by the end of the sprint. Learn more: Scrum best practices, Set sprint goals.

Sprint planning

The Sprint planning meeting occurs at the start of a sprint and is when the product owner and team agree on a set of sprint goals and work. Learn more: Scrum best practices, Sprint planning meetings.

Sprint retrospective meetings

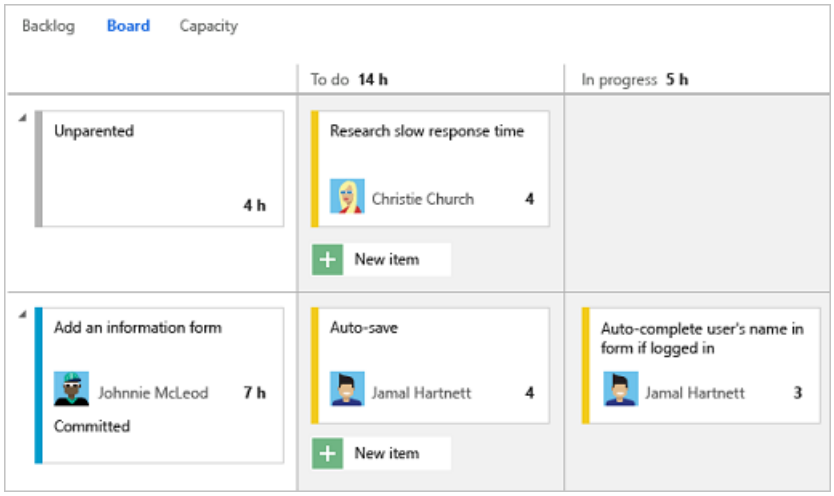
The Sprint review or retrospective meeting occurs at the end of a sprint and is when the team demonstrates the work that they completed during the sprint. The product owner, customers, and stakeholders accept the user stories that meet their expectations and identify any new requirements. Customers often understand their additional needs more fully after seeing the demonstrations and may identify changes that they want to see. Learn more: Scrum best practices, Sprint retrospective meeting.

Task

A type of work item used to track estimated and remaining work. In Scrum a task is usually defined to range between four and twelve hours. Defining tasks are essential for monitoring sprint burndown, working with team capacity, and using the Taskboard. Tasks are linked to their parent product backlog items or user stories. Learn more: Add tasks to backlog items.

Taskboard

A taskboard provides an interactive progress board for work required to complete a team's sprint backlog. During your sprint you'll want to update the status of tasks and the remaining work for each task. Updating tasks daily or several times a week yields a smoother sprint burndown chart. Learn more: Taskboard.



Teams

A team corresponds to a selected set of project members. With teams, organizations can subcategorize work to better focus on all the work they track within a project. Each team gets access to a suite of Agile tools. Teams can use these tools to work autonomously and collaborate with other teams across the enterprise. Each team can configure and customize each tool to meet their work requirements. To learn more, see About teams and Agile tools.

Team member

A member who has been added to a project or organization who has been added to a specific team. Project members can be added to several teams. Several Agile tools, such as capacity planning, team alerts, and dashboard widgets are team-scoped. That is, they automatically reference the users that have been added as members of a team to support planning activities or sending alerts.

To add users to a team, see Add users to a project or specific team.

Technical debt

Technical debt includes anything the team must do to deploy production quality code and keep it running in production. Examples are bugs, performance issues, operational issues, accessibility, and others. Learn more about how to minimize technical debt: What is Agile Development?.

Triage meetings

Triage meetings are used to review and prioritize the backlog and bugs assigned to a team. Additional details, such as estimates, acceptance criteria, and more may be added to the work items. Typically, a product owner runs triage meetings, and team leads, business analysts and other stakeholders who can speak about specific project risks attend them. Learn more: Triage work items.

User story

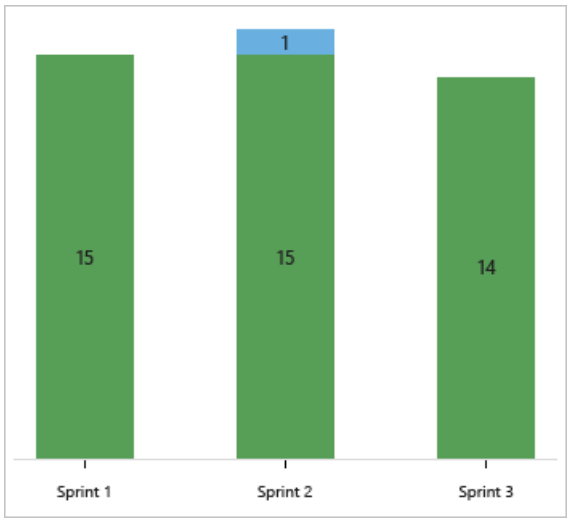
A type of work item that defines the applications, requirements, and elements that teams plan to create. Product owners typically define and stack rank user stories. User story is defined with the Agile process. Learn more: Agile process work item types and workflow.

Velocity and velocity chart

Velocity provides a useful metric for gaining insight into how much work your team can complete during a sprint cycle. After your team has worked several sprints, they can use the velocity chart and forecast tool to estimate work that can be accomplished in future sprints.

Velocity is a measure of how much work a team can complete based on their sprint cadence. The built-in velocity chart measures velocity by summing the Story Points (Agile), Effort (Scrum), or Size (CMMI) defined for a sprint.

For example, in the chart shown below the green bar indicates the total estimated effort (story points) of the user stories completed within each sprint. Blue corresponds to the estimated effort of items not yet completed. Learn more: View and work with the built-in team velocity chart.



In addition to the built-in Velocity chart, you can add a Velocity widget to your team dashboard. You can configure this widget to sum a count of work items or the sum of effort. Learn more: Configure the Velocity widget.

Each team is associated with one and only one velocity chart. Velocity will vary depending on team capacity, sprint over sprint. However, over time, the velocity should indicate a reliable average that can be used to forecast the full backlog. By minimizing the variability of backlog item size—effort or story points—you gain more reliable velocity metrics. Learn more: Add tasks to backlog items.

Related articles

- Refine your backlog
- Scrum best practices.
- About Sprints and Scrum
- What is Scrum?

Scrum and sprint planning tools

1/25/2019 • 3 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Once you've defined iteration paths (aka sprints) and configured team iterations, you can start using the following tools to plan your sprint.

Track team capacity

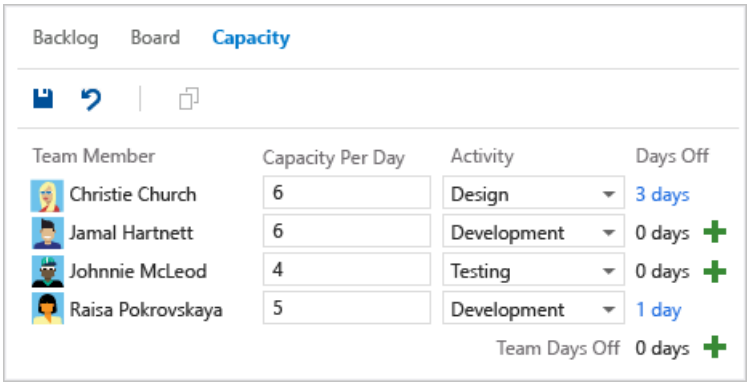
At the start of each sprint, you'll want to plan the work that your team can commit to. The three Agile tools that support this work include the sprint backlog, capacity planning, and capacity bars. The sprint backlog contains a filtered subset of backlog items whose iteration path corresponds to the current sprint.

Team capacity planning tool

By setting team capacity, the team knows exactly the total number of work hours or days the team has for each sprint. With this tool, you set individual team member capacity as well as days off. And, conveniently, you can set holidays or shared days off taken by the entire team.

Setting capacity for each team member working during a sprint causes the capacity bar for that individual to appear.

You set recurring days off, such as weekends, through team settings.

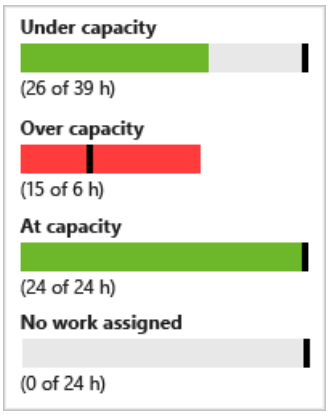


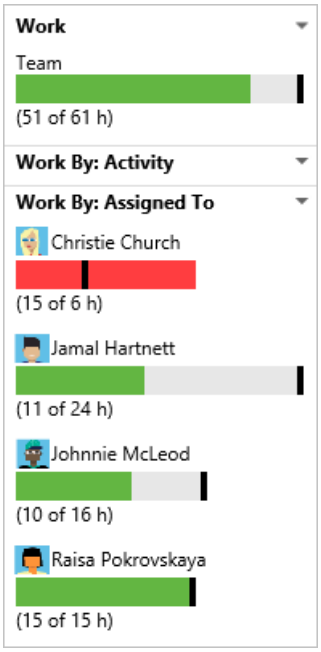
Individual and team capacity bars

With capacity bars, you can quickly see who is over, at, or under capacity. Capacity bars update with each of these activities:

- Tasks are assigned with non-zero remaining work
- Change in remaining work
- Date change within the sprint cycle. Individual and team capacity always reflects their capacity from the current day till the end of the sprint.

Here's how to interpret the capacity colors:





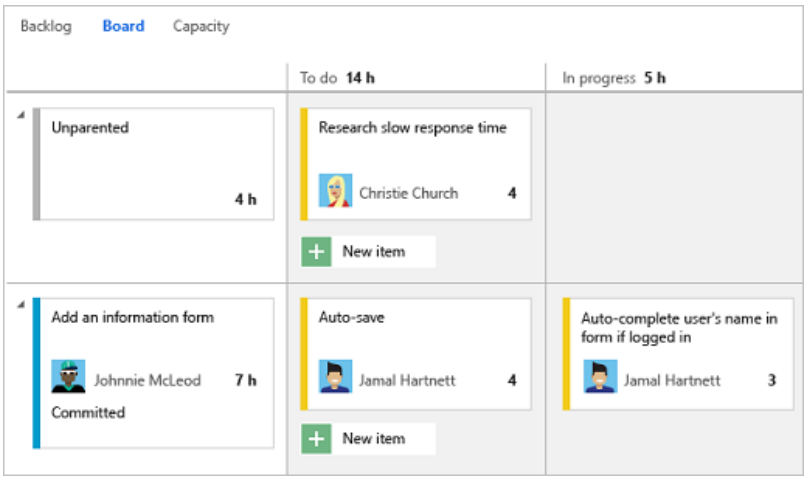
Update tasks, monitor burndown

During a sprint, your team can use the taskboard and sprint burndown chart to track their progress. Your sprint burndown chart provides you with an at-a-glance visual to determine if your team is on track to meet their sprint plan.

Taskboard

Your Taskboard provides an interactive progress board for work required to complete the sprint backlog. During your sprint you'll want to update the status of tasks and the remaining work for each task.

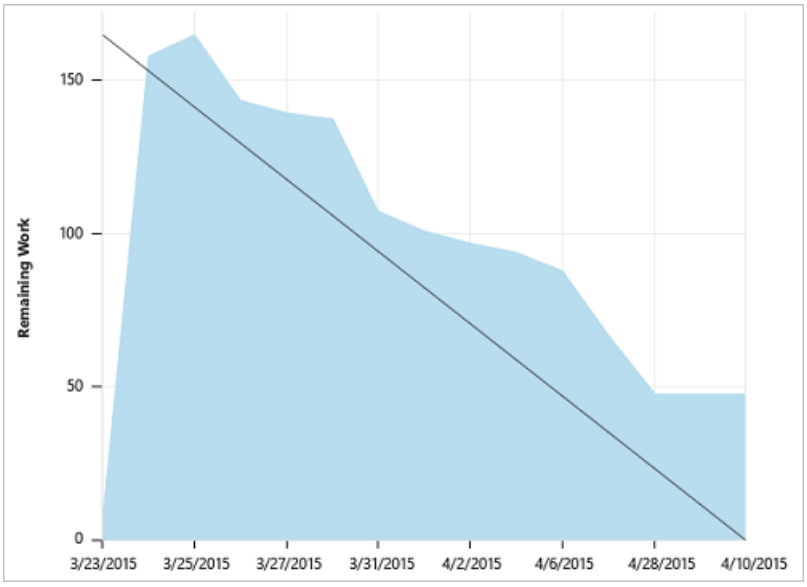
Updating tasks daily or several times a week yields a smoother burndown chart.



Sprint burndown chart

You use the sprint burndown chart to mitigate risk and check for scope creep throughout your sprint cycle. The burndown chart reflects the progress made by your team in completing all the work they estimated during their sprint planning meeting.

The ideal trend line always indicates a smooth and steady burndown. The blue area, however, represents what's actually going on. It shows the buildup of work as team members add tasks and the reduction of work as team members complete those tasks.



Velocity and forecast

While you use sprint planning and tracking tools for each sprint, you use the velocity and forecast tools to estimate work that can be completed in future sprints.

Velocity provides a useful metric for gaining insight into how much work your team can complete during a sprint cycle. And, the forecast tool provides a means for determining how much work your team can complete within a sprint based on a specified team velocity.

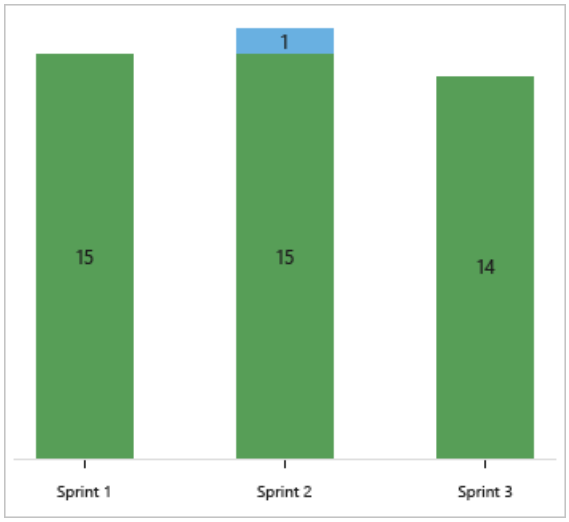
After your team has worked several sprints, they can use the velocity chart and forecast tool to estimate work that can be accomplished in future sprints.

Velocity chart

Each team is associated with one and only one velocity chart. The green bar within the chart indicates the total estimated effort (story points or size) of backlog items (user stories or requirements) completed within the sprint. (Blue corresponds to the estimated effort of items not yet completed.)

Velocity will vary depending on team capacity, sprint over sprint. However, over time, the velocity should indicate a reliable average that can be used to forecast the full backlog.

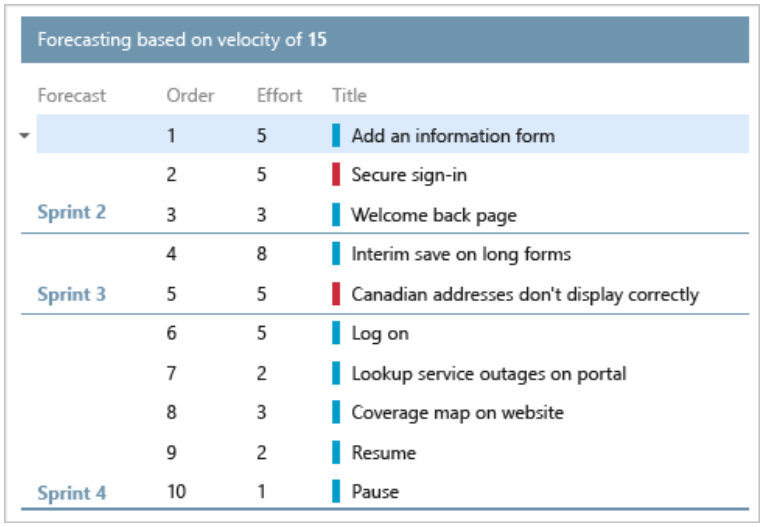
By minimizing the variability of backlog item size—effort or story points—you gain more reliable velocity metrics.



Forecast tool

You can use the forecast tool to get an idea of how many and which items you can complete within a sprint.

*By plugging in a velocity, you can see which items are within scope for the set of sprints the team has selected. As shown here, a velocity of 15 indicates that it will take three sprints to complete the work shown. *



Related articles

If you work with several teams, and each team wants their own backlog view, you can create additional teams. Each team then gets access to their own set of Agile tools. Each Agile tool filters work items to only include those assigned values under the team's default area path and iteration path.

- About Sprints, Scrum and project management
- What is Scrum?
- Add teams
- Define iterations for a project
- Manage teams and configure team tools

About area and iteration paths (aka sprints)

2/11/2019 • 7 minutes to read • Edit Online

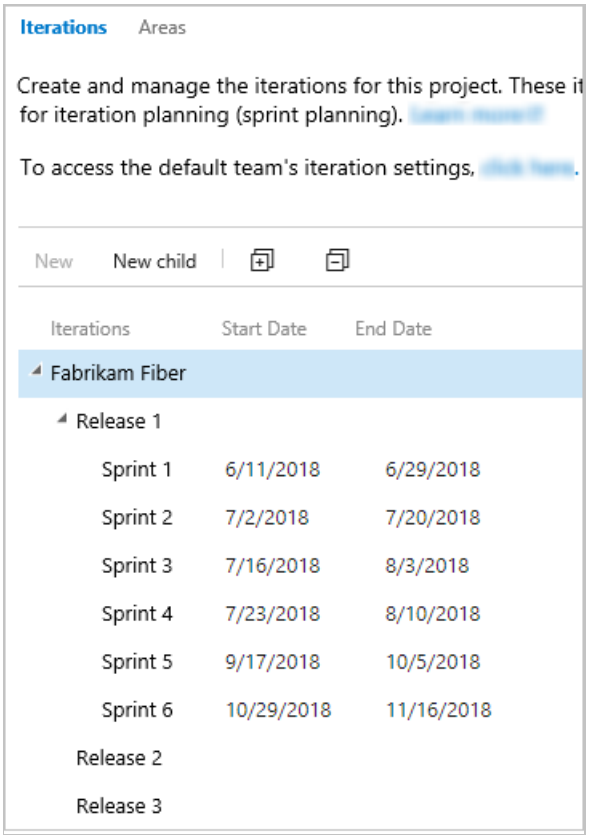
Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Area paths allow you to group work items by team, product, or feature area. Whereas, iteration paths allow you to group work into sprints, milestones, or other event-specific or time-related period. Both these fields allow you to define a hierarchy of paths.

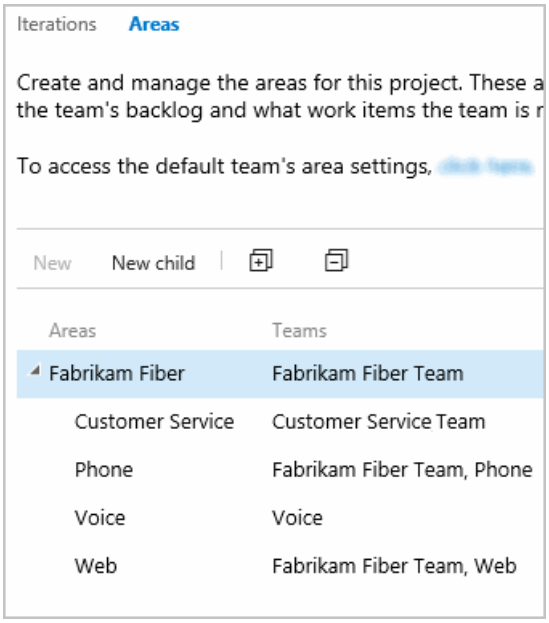
You define area and iteration paths for a project. Teams can then choose which paths are used to support their backlog and other Agile tools. To understand how Agile tools use area and iteration paths, see Agile tools that rely on areas and iterations.

The areas and iterations you see depend on the process you used to create your project. Here we show the defaults defined for the Scrum process. No dates are set. You set dates to correspond to your sprint or release schedules.

ITERATIONS



AREAS



End-to-end sequence to define and assign Area Paths

If you are new to managing projects and teams, the most straight forward sequence for configuring your project and teams is as follows:

1. Determine the number and names of Area Paths that you want to support to categorize your work. At a minimum, you'll want to add one Area Path for each team that you'll define.
2. Determine the number and names of teams you will want to support. For guidance, review About teams and Agile tools.
3. Open **Project settings>Project configuration** and define the Area Paths to support steps 1 and 2 at the

project level. Follow the steps provided later in this article: Open Project Settings, Project configuration and Add area paths.

4. Define the teams you need to support step 2. For guidance, see Add a team, move from one default team to several teams.
5. Open the team configuration and assign the default and additional Area Path(s) to each team. Follow the steps provided later in this article: Open team settings and Set team default area path(s).
6. Assign the Area Path of work items to an area path you defined. Use bulk modify to modify several work items at once.

> **NOTE**
> While you can assign the same area path to more than one team, this can cause problems if two teams claim ownership over the same set of work items. To learn more, see About boards and Kanban, Limitations of multi-team Kanban board views.

As needed, you can perform the following actions at any time:

- Add additional child nodes
- Rename an Area Path (except the root area path)
- Move a child node under another node
- Delete a child node
- Rename a team
- Change the Area Path assignments made to a team

How many areas should a team define?

You add areas to support your team's trace-ability and security requirements. Use areas to represent logical or physical components, and then create child areas to represent specific features.

Add areas when you have these requirements:

- Filter queries based on a product or feature area
- Organize or group work items by team or sub-teams
- Restrict access to work items based on their area.

Each team can create a hierarchy of areas under which the team can organize their backlog items, user stories, requirements, tasks, and bugs.

Avoid creating an area structure that is too complex. You can create areas to partition permissions on work items, but complex trees require significant overhead for permission management. You might find that it is too much work to duplicate the structure and permissions in other projects.

End-to-end sequence to define and assign Iteration Paths

Use the following guidance to configure Iteration Paths (aka sprints) for your project and teams:

1. First, define the Area Paths and teams following the guidance provided in Define area paths and assign to a team.
2. Determine the length of the iteration you want to support. Recommended practice is to have all teams use the same sprint cadence.
3. Determine if you want a flat structure or hierarchy of sprints and releases.
4. Open **Project settings>Project configuration** and define the Iteration Paths to support steps 2 and 3 at the project level. Follow the steps provided later in this article: Open Project Settings, Project configuration and Add iterations and set iteration dates.

5. Open the team configuration and assign the default and additional Area Path(s) to each team. Follow the steps provided later in this article: Open team settings and Set team default iteration path(s).
6. Each team should assign the default Iteration Path they selected to their work items. This is needed in order for those work items to show up on their product backlogs and boards. Use bulk modify to modify several work items at once. See also Assign backlog items to a sprint.

As needed, you can perform the following actions at any time:

- Add additional child iteration nodes
- Rename an Iteration Path (except the root path)
- Move a child Iteration Path under another node
- Delete a child Iteration Path
- Change the default and selected Iteration Paths assigned to a team

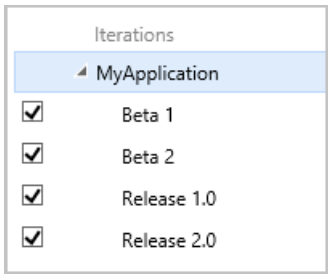
How many iterations should a team define?

You define as many child iterations as you need to reflect your project lifecycle. These paths represent a series of events, such as sprints, pre-beta and beta deliverables, and other release milestones. Teams typically leave work items assigned to the team's default iteration if they are not yet scheduled for work or for a release.

Add iterations to support these requirements:

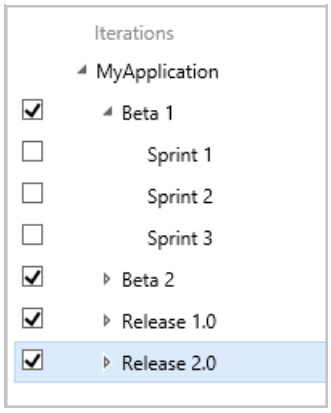
- Define sprints your Scrum teams use to plan and execute their sprints
- Set up more complex multi-release and sprint cycles
- Filter queries based on sprints, milestones, or cycle time for your project
- Support future work that you're not ready to assign to a target release cycle.

In the following example, Beta 1, Beta 2, Release 1.0, and Release 2.0 are defined for the MyApplication project.



As you create the backlog of product features and tasks, you can start to assign them to the milestones by which you expect the team to finish the features and tasks. As your needs change, you can add events under each major milestone that reflect how your team schedules and manages its work.

As the following example shows, the Beta 1 iteration now contains three child nodes, one for each sprint in the Beta 1 time period.



Iterations do not enforce any rules. For example, you can assign a task to an iteration but not close or complete it during that iteration. At the end of an iteration, you should find all work items that remain active or have not been closed for that iteration and take appropriate action. You can, for example, move them to a different iteration or return them to the backlog.

Naming restrictions

The **Area Path** and **Iteration Path** fields, data type=TreePath, consist of multiple node items which are separated by the backslash (\) character. We recommend that you minimize the names of nodes, and make sure that you conform to the following restrictions when adding child nodes:

RESTRICTION TYPE	RESTRICTION
Node length	Must not contain more than 255 characters
Special characters for nodes	Must not contain Unicode control characters Must not contain any of the following characters: \ / $? * : " & < # % + Must not contain characters that the local file system prohibits.
Reserved names	Must contain more than a period (.) or two periods (..) Must not be a system-reserved name such as PRN, COM1, COM2, COM3, COM4, COM5, COM6, COM7, COM8, COM9, COM10, LPT1, LPT2, LPT3, LPT4, LPT5, LPT6, LPT7, LPT8, LPT9, NUL, CON, or AUX
Path length	Must contain fewer than 4,000 Unicode characters
Path hierarchy depth	Must be fewer than 14 levels deep

Related articles

As you can see, areas and iterations play a major role in supporting Agile tools and managing work items. You can learn more about working with these fields from these topics:

- Define area paths and assign to a team
- Define iteration paths (aka sprints) and configure team iterations
- Agile tools and sprint definitions
- Query by date or current iteration

Export tree structures

You can't export the structure of tree paths for one project to use with another project.

Supported field rules

You can specify only a small subset of rules, such as `HELPTEXT` and `READONLY` to System.XXX fields.

Team field versus team area path

If your organization has several teams that work from a common backlog and across many product areas, you might want to change how teams are configured. By adding a custom field to represent teams in your organization, you can reconfigure the agile planning tools and pages to support your teams and decouple assignment to teams and area paths.

How workflow states and state categories are used in Backlogs and Boards

1/31/2019 • 5 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

All workflows consist of states, transitions, and reasons. Workflows are defined for a work item type (WIT). A transition supports forward and backward movement among two states. When you add a custom state, the system automatically adds transitions from the custom state to all other inherited states (except for Removed).

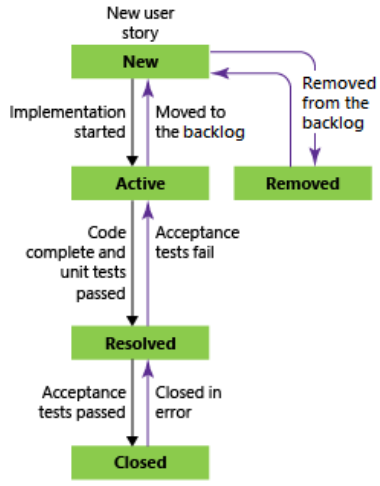
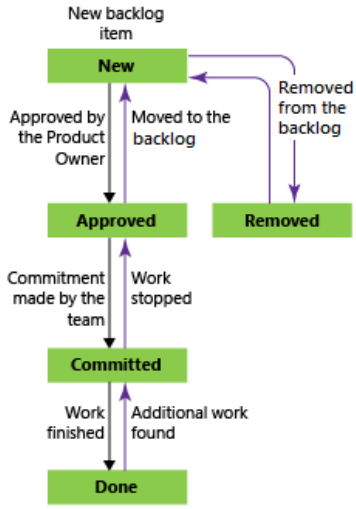
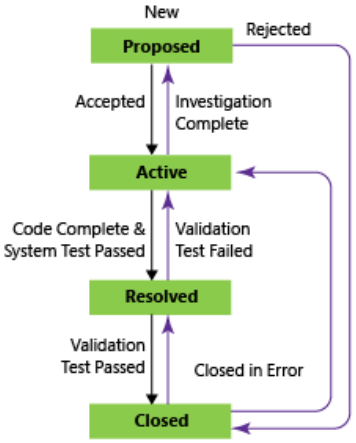
Each state belongs to a state category (previously referred to as a metastate). State categories support the Agile tool backlog and board views.

Workflow states

Workflow states define how a work item progresses upon its creation to closure. For example, the four main states defined for the User Story (Agile process) define a progression of four states, from New, Active, Resolved, to Closed. (The Removed state supports removing a work item from appearing on the backlog; to learn more, see Move, change, or delete work items.)

The natural progressions and regressions of the user story, product backlog item, and requirement WITs are as shown.

Workflow states

USER STORY, AGILE PROCESS	PRODUCT BACKLOG ITEM, SCRUM PROCESS	REQUIREMENT, CMMI PROCESS
		

State categories

State categories, on the other hand, determine how Agile planning tools and select dashboard widgets treat each workflow state. The state categories used by the backlogs, boards and widgets are Proposed, In Progress, and Complete.

Here's how the default, inherited states map to the state categories for all three system processes plus test case management WITs. The workflow states for Test Case, Test Design, and Test Suite are the same across all three

system processes.

CATEGORIES	AGILE	SCRUM	CMMI	TEST WITS
Proposed: Assign to states associated with newly added work items that should appear on the backlog. The first column on the Kanban or taskboard maps to a Proposed state.	New	New Approved To Do (Task)	Proposed	Design (Test Case)
In Progress: Assign to states that represent active work. Work items assigned to states mapped to this category will appear in the backlog (unless you choose to hide them) and make up the middle columns on the Kanban boards.	Active Resolved (Epic, Feature, User Story)	Committed Open (Impediment)	Active Resolved (Epic, Feature, Requirement, Task)	Active (Test Plan) In Planning (Test Suite) In Progress (Test Suite) Ready (Test Case)
Resolved: Assign to states that represent a solution has been implemented, but are not yet verified. Generally these states apply to bug WITs. Work items in a Resolved state appear on the backlog by default. The Agile tools treat the Resolved state category exactly the same as the In Progress state category.	Resolved (Bug)	n/a	Resolved (Bug, Issue, Review, Risk)	n/a
Completed: Assigned to states that represent work has finished. Work items whose state is in this category don't appear on the backlog and do appear in the last column of the Kanban board. Note that you can't modify states in this category nor can you add states to this category.	Closed	Done	Closed	Closed (Test Case) Completed (Test Suite) Inactive (Test Plan)
Removed: Assigned to the Removed state. Work items in a state mapped to the Removed category are hidden from the backlog and board experiences. > **Note:** You should avoid using the Removed state and Removed state category as they are in the process of being deprecated. Instead, you should Delete work items to remove them from the backlog.	Removed	Removed	n/a	n/a

When to add a State versus a Kanban column

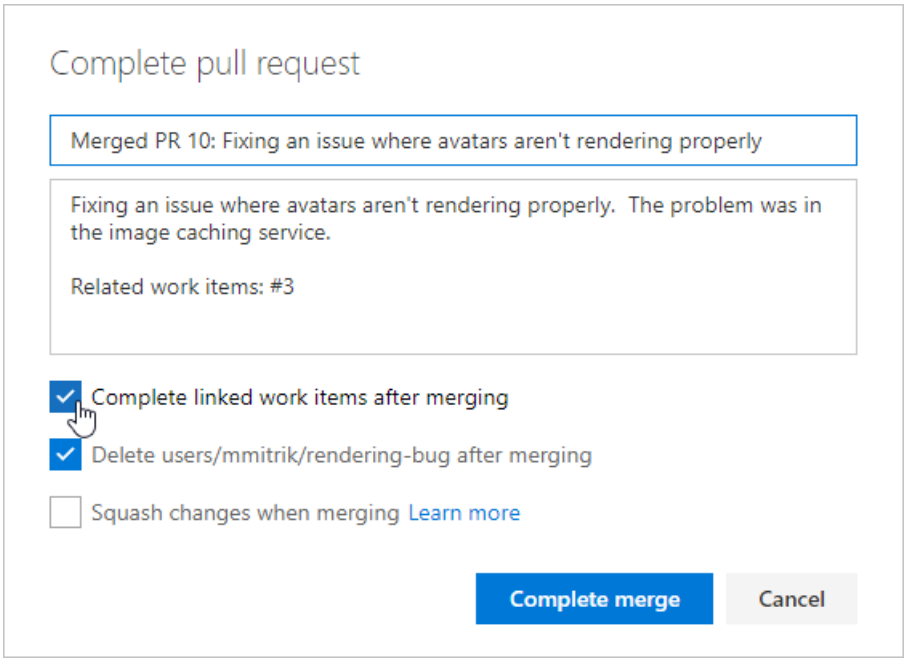
Both States and Kanban columns are used to track the status of work. Workflow states are shared across a project while Kanban columns are shared within a team. Only project collection admins can add custom states, while team admins can add Kanban columns.

Add custom states when you want all teams to track the status according to the business workflow adopted by the organization. By customizing the process, you automatically customize the projects and WITs that reference that process.

Also, by adding custom states to support those workflow states that several teams want to track, you avoid the confusion that can arise when team's create a query based on a Kanban column. Because each team can customize the Kanban board columns and swimlanes, the values assigned to work items which appear on different boards may not be the same. The primary work around for this issue is to maintain single ownership of work items by team area path. Another work around is to formalize the columns by adding custom states which can be shared across teams.

Auto completion of work items with pull requests

When you link a work item to a pull request (PR), you have the option to automatically complete those work items when you successfully complete the PR. As shown in the following image, all you have to do is check the box to **Complete linked work items after merging**. The system defaults to your selection for future PRs.



In the following circumstances the system won't automatically update the work item state to Done, Closed, or the state that belongs to the Closed category for the WIT:

- The work item, whose WIT is managed with the Inheritance process model, is already in a State that belongs to the Resolved category. In this instance the system won't update the State. For example, if a bug derived from the Agile process is in a Resolved state, the system won't transition it to Closed.
- The work item is already in a State that belongs to the Completed category. No further transition is required.
- The WIT associated with the work item contains one or more workflow field rules that prevent the work item being saved to a next state. For example, a rule requires that another field must be defined as part of closing the work item.
- For TFS and Azure Boards Hosted process model, you must modify the workflow to specify actions (**ACTION** element) to take place when transitioning the workflow. See Change the workflow for a work item type, Specify Actions.

To learn more about process models, see Customize your work tracking experience.

Related articles

- Lead Time and Cycle Time control charts (widgets)
- Customize a workflow for a process

- Lead Time and Cycle Time control charts (widgets)

- Change the workflow for a work item type

- ProcessConfiguration XML element reference
- Customize your work tracking experience

- Change the workflow for a work item type
- ProcessConfiguration XML element reference
- Customize your work tracking experience

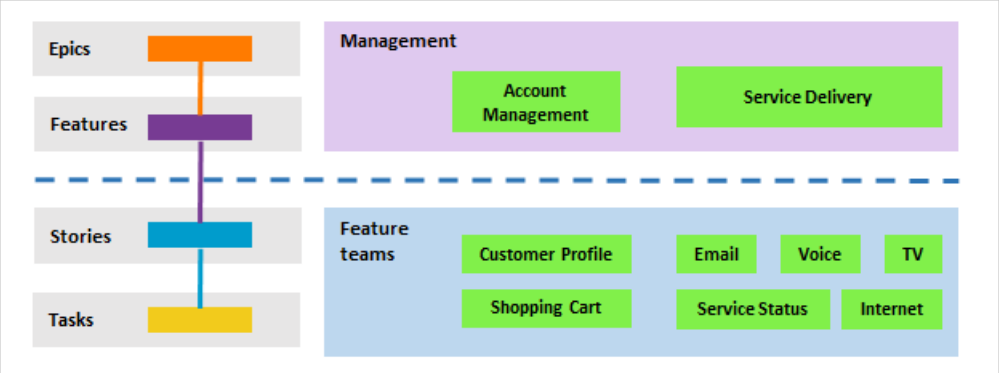
About teams and Agile tools

1/25/2019 • 8 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Adding a team is the #1 way in which Agile tools supports a growing organization. Once your team grows beyond its optimum size—typically anywhere from 6 to 9 members—you might consider moving from a one team structure to a two team structure. For enterprises adopting Agile tools, setting up a hierarchical team structure provides several advantages to portfolio and program managers to track progress across several teams.

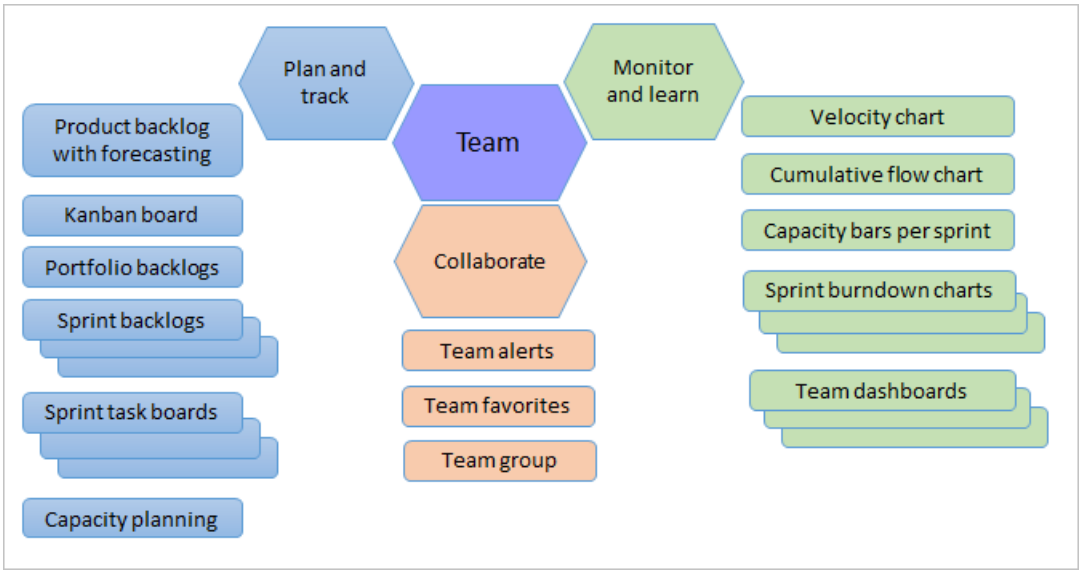
Depending on the size of your organization and your tracking needs, you can set up a team structure similar to the one shown. You do this by defining teams and their associated area path(s).

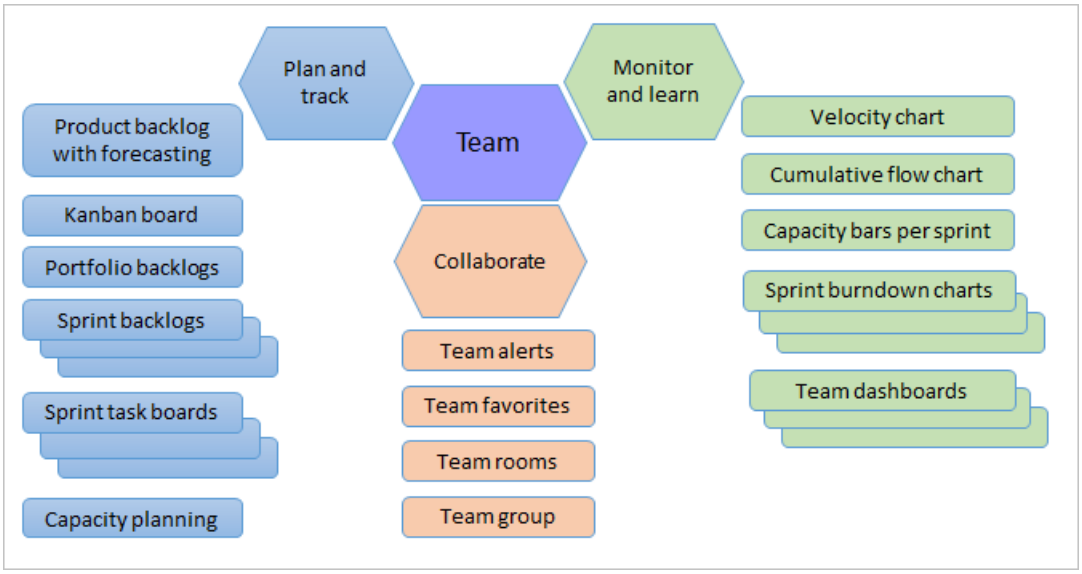


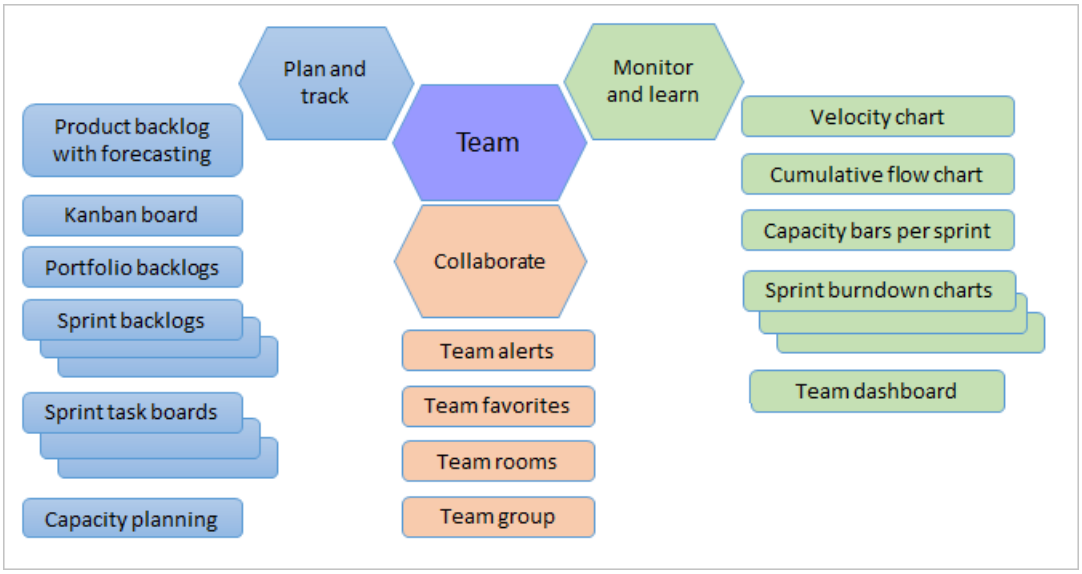
For example, each feature team can be associated with a single feature area path—such as *Customer Profile*, *Shopping Cart*, *Email*—or several area paths. Each management team, which focuses on a set of features, can choose several area paths to monitor. This allows each feature team to have their distinct backlog to plan, prioritize, and track their work. And, portfolio or product owners can create their vision, road map, and goals for each release, monitor progress across their portfolio of projects, and manage risks and dependencies. To learn more, see Portfolio management.

Each team gets their own set of tools

Each team you create gets access to a suite of Agile tools and team assets. These tools provide teams the ability to work autonomously and collaborate with other teams across the enterprise. Each team can configure and customize each tool to support how they work.







These tools reference the team's default area path, iteration path, and selected sprints to automatically filter the set of work items they display. To learn more about each tool and the configuration settings for each tool, see the corresponding articles.

AREA	TOOL	TEAM CONFIGURATION TASKS

Backlogs	• Product backlog • Features backlog • Epics backlog • Forecast	• Configure area paths • Select active iteration paths (sprints) • Select backlog levels • Show bugs on backlogs & boards
Sprints and Scrum	• Sprint backlogs • Sprint capacity • Task board • Sprint burndown	• Select active iteration paths (sprints) • Set working days
Kanban boards	• Kanban board • Features board • Epics board • Cumulative flow	• Configure area paths • Select default iteration path • Select backlog levels • Show bugs on backlogs & boards
Widgets	• New work item • Sprint burndown • Sprint capacity • Sprint overview • Team members	• Configure area paths • Select active iteration paths (sprints) • Add team members
Other tools	• Favorites • Work item templates • Delivery plans • Queries • Velocity • Dashboards • Alerts	Not applicable

AREA	TOOL	TEAM CONFIGURATION TASKS
Backlogs	• Product backlog • Features backlog • Epics backlog • Forecast	• Configure area paths • Select default, current, and active iteration paths (sprints) • Select backlog levels • Show bugs on backlogs & boards
Sprints and Scrum	• Sprint backlogs • Sprint capacity • Task board • Sprint burndown	• Configure area paths • Select default, current, and active iteration paths (sprints) • Set working days
Kanban boards	• Kanban board • Features board • Epics board • Cumulative flow	• Configure area paths • Select default, current, and active iteration paths (sprints) • Select backlog levels • Show bugs on backlogs & boards

Widgets	• New work item • Sprint burndown • Sprint capacity • Sprint overview • Team members	• Configure area paths • Select default, current, and active iteration paths (sprints) • Add team members
Other tools	• Favorites • Work item templates • Queries • Velocity • Dashboards • Team rooms • Alerts	Not applicable

AREA	TOOL	TEAM CONFIGURATION TASKS
Backlogs	• Product backlog • Features backlog • Forecast	• Configure area paths • Select default, current, and active iteration paths (sprints) • Show bugs on backlogs & boards
Sprints and Scrum	• Sprint backlogs • Sprint capacity • Task board • Sprint burndown	• Configure area paths • Select default, current, and active iteration paths (sprints) • Set working days
Kanban boards	• Kanban board • Features board • Cumulative flow	• Configure area paths • Select default, current, and active iteration paths (sprints) • Select backlog levels • Show bugs on backlogs & boards
Widgets	• New work item • Sprint burndown • Sprint capacity • Sprint overview • Team members	• Configure area paths • Select default, current, and active iteration paths (sprints) • Add team members
Other tools	• Favorites • Work item templates • Queries • Velocity • Team home page • Team rooms • Alerts	Not applicable

Many of these tools are built from system queries that reference the team area path. For example, a team's default area path filters the work items that appear on a team's backlog. Also, work items that you create using an Agile tool auto-assign the areas and iterations based on team defaults.

Team defaults referenced by backlogs and boards

What work items appear on team backlogs and boards? When you add work items to a backlog or board, how are team defaults used to assign field values?

Teams are associated with one or more area paths and a backlog iteration path which determine what items will appear on their backlogs and boards.

When you define a team, you define the team's:

- Selected area path(s)
- Default area path
- Selected iteration path(s)
- Backlog iteration path
- Default iteration path

All Agile tools reference the area path(s) defined for a team. The set of work items that appear on a backlog or board depend on the current State of a work item or it's parent-child status.

In addition, several tools reference the team's default iteration and selected iteration paths or sprints. For example, when you add new work items from a backlog or board view, or from a team dashboard, the system assigns the team's default area path and default iteration path to these work items.

AGILE TOOL	AREA PATH (SEE NOTE 1)	ITERATION PATH	STATE
Portfolio or product backlogs	Selected area path(s)	Equal to or under team's backlog iteration path	Active (corresponds to a Proposed or InProgress state category, see notes 2, 3)
Kanban boards (see note 4)	Selected area path(s)	Equal to or under team's backlog iteration path	Any state (see notes 3, 5)
Sprint backlogs (see note 4)	Selected area path(s)	Team's selected iteration paths	Any state (see notes 3, 5)
Task boards (see note 4)	Selected area path(s)	Team's selected iteration paths	Any state (see notes 3, 5)
New work item widget	Default area path	Default iteration path	n/a

Notes:

1. Agile tools filter items based on the team's selected area path(s). Teams can choose whether to include or exclude items assigned to subarea paths.
2. Work items whose State equals Closed, Done, or Removed (corresponding to a Completed category state) don't appear on portfolio and product backlogs.
3. You can add custom workflow states and assign them to one of three state categories. The state categories determine which work items appear on backlog and board views.
4. Kanban boards, sprint backlogs, and task boards only show the last node in a hierarchy, called the leaf node. For example, if you link items within a hierarchy that is four levels deep, only the items at the fourth level appear on the Kanban board, sprint backlog, and task board. To learn more, see parent-child links between items.
5. Work items whose State equals Removed don't appear on boards.

Structure hierarchical teams or scale agility within an enterprise

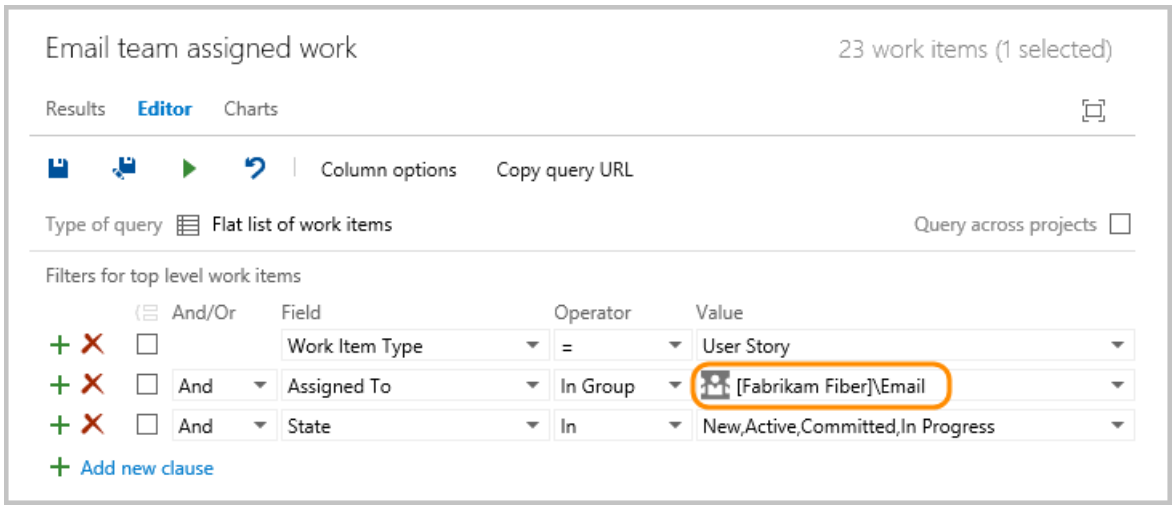
Although there is no concept of sub-teams, you can create teams whose area paths are under another team, which effectively creates a hierarchy of teams. To learn more, see Add another team.

Also, these topics can walk you through the steps for configuring teams, area paths, and iterations to support portfolio management or enterprise organizations:

- Portfolio management
- Implement Scaled Agile Framework to support epics, release trains, and multiple backlogs

Team groups

When you add a team, a security group is automatically created with the team name. You can use this group to filter queries. The name of team groups follows the pattern **[Project Name]\Team Name**. For example, the following query finds work assigned to members of the **[Fabrikam Fiber]\Email** team group.



You can also use the **@mention** control within discussions and pull requests to notify all members of a team. Simply start typing the name of a team or a security group, click the search icon and then select from the options listed. To learn more, see Use @mentions to further discussion.

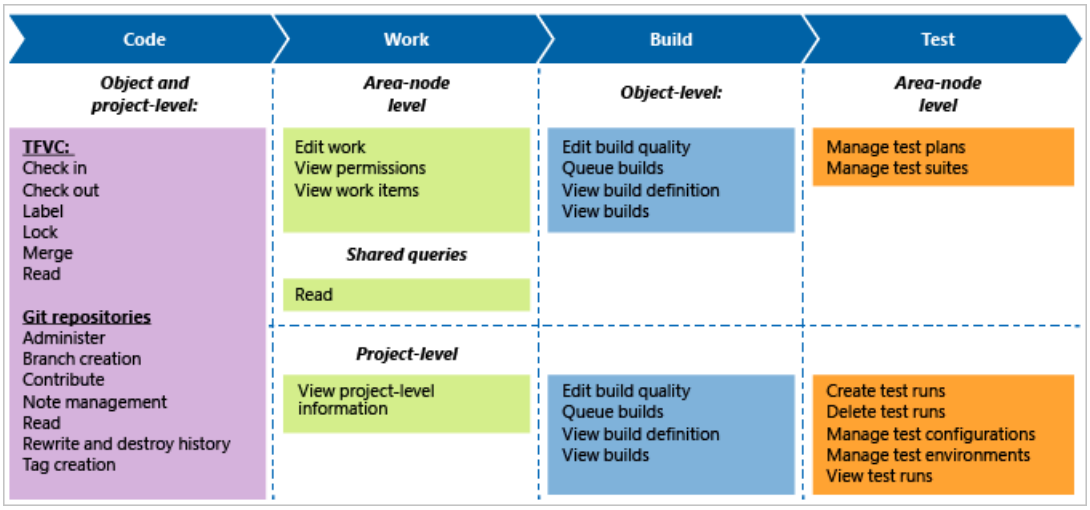
Work on more than one team

Can a user account belong to more than one team?

Yes. When you add user accounts to a project, you can add them as members of the project, or you can add them to one or more teams added to the project. If you work on two or more Scrum teams, you'll want to make sure you, specify your sprint capacity for each team you work on.

Team member permissions

By default, team members inherit the permissions afforded to members of the project Contributors group. Members of this group can add and modify source code, create and delete test runs, and create and modify work items. They can collaborate with other team members and collaborate on a Git project or check in work to the team's code base.



You can choose to limit access to select features by making a user a Stakeholder or limiting their access to read-only. For an overview of default permissions and access assignments set for work tracking features and built-in groups, see Permissions and access for work tracking.

Summary

- Every team owns their own backlog, to create a new backlog you create a new team
- Every backlog has a corresponding Kanban board you can use to track progress and update status
- The team's specified area and iteration paths determine which work items appear on the backlog and Kanban board—you can easily decide to include or exclude work items under a specific area path
- Each team can control how bugs show up on their backlogs and boards
- For an overview of all team assets and how to configure them, see Manage teams and configure team tools
- To have work performed by several teams roll up in to a portfolio backlog, you'll want to setup the team hierarchy
- To add fields or work item types, see Customize your work tracking experience.

Related articles

- Add another team
- Configure team settings
- Work across projects

1/31/2019 • 4 minutes to read • Edit Online

Filter backlogs or queries based on keywords, tags, or other fields

Filter backlogs or queries based on keywords

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

If you have many items listed in your product or portfolio backlog—and you want to focus on a subset of them—you can filter the set.

Filter based on keywords or fields

You can filter work items by typing a keyword or using one or more of the fields provided, such as work item type, assigned to, state, and tags. Based on the keyword that you enter, the filter function will list work items based on any visible/displayed column or field, including tags. Also, you can enter a value for an ID, whether or not the ID field is visible.

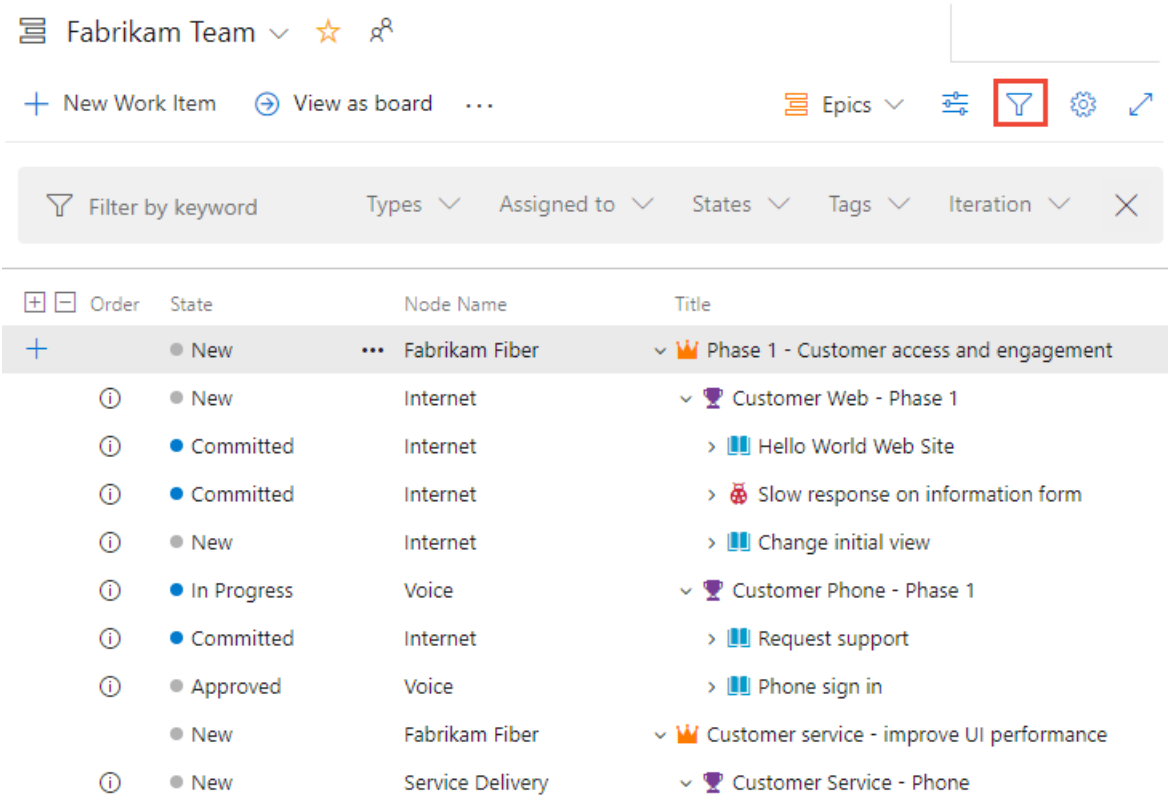
> **NOTE**
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

> **NOTE**
> Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

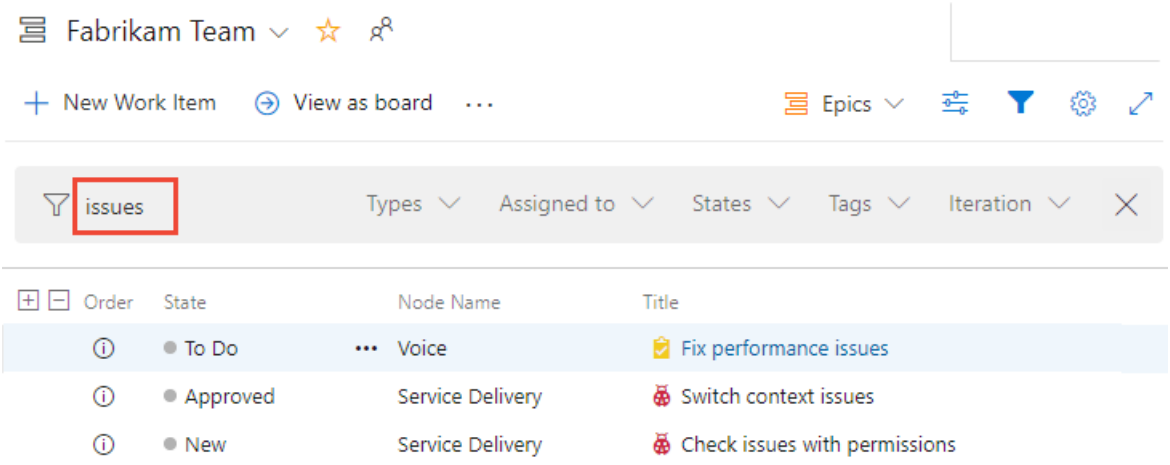
> **NOTE**
> Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

- New navigation
- Previous navigation

To show the filter toolbar, choose the filter icon, or enter the **Ctrl+Shift+f** keyboard shortcut. You can filter all backlogs, boards, and query results.



Here we show a filtered backlog based on the keyword "issues". Filtered pages show the filtered icon. The filtered set is always a flat list, even if you've selected to show a hierarchical backlog view.

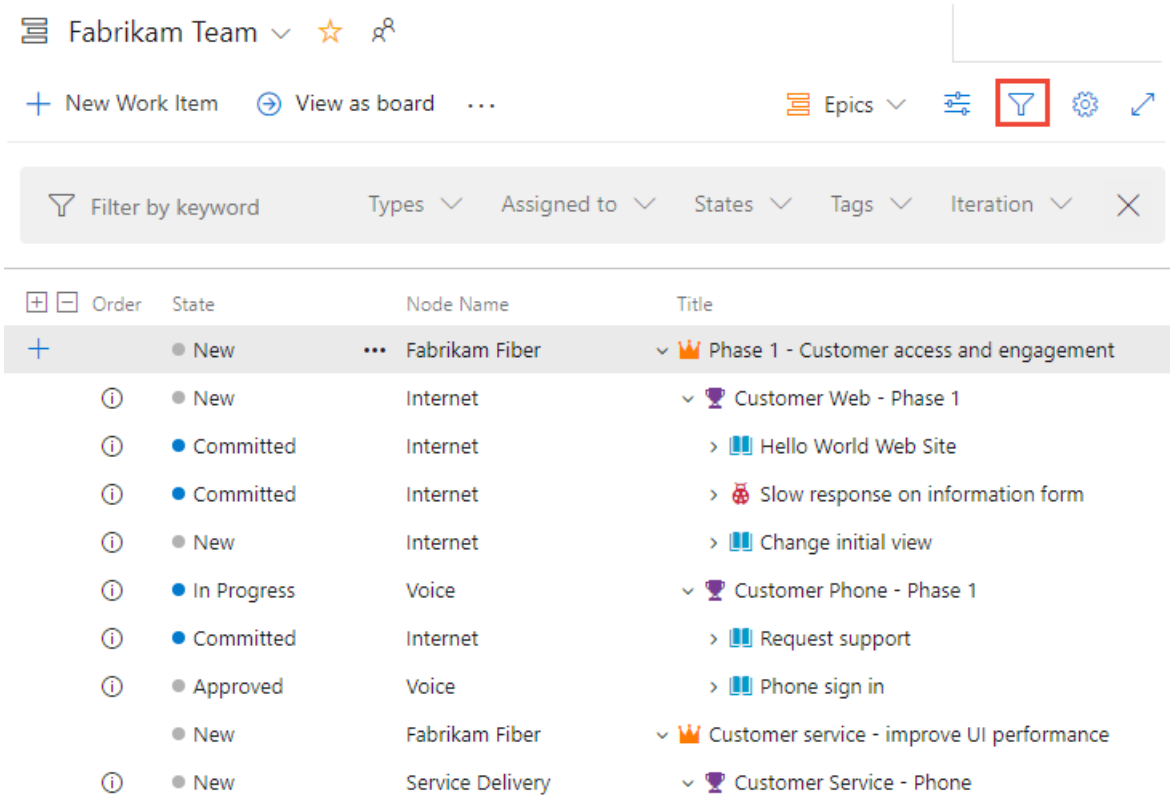


To clear and dismiss filtering, choose the close filter icon.

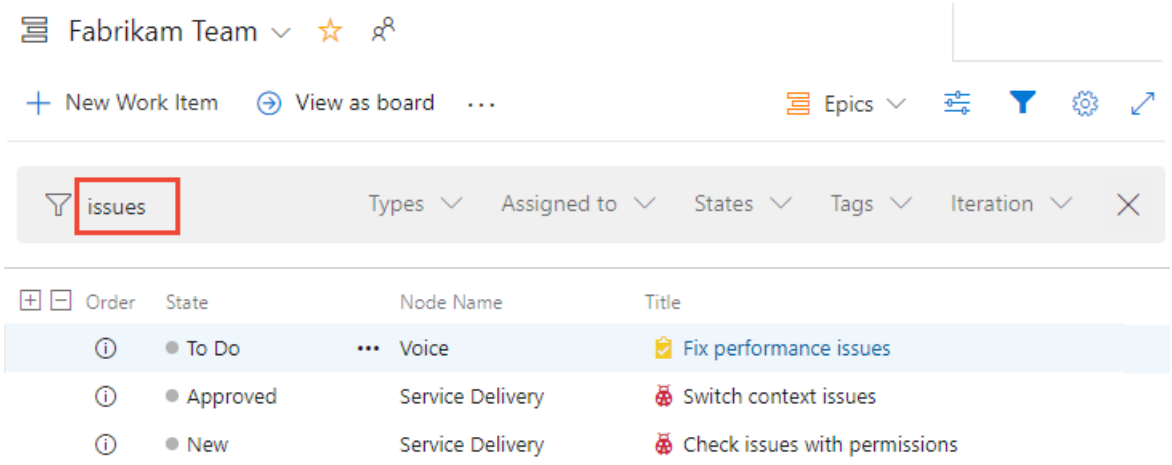
Filter based on keywords or fields

You can filter work items by typing a keyword or using one or more of the fields provided, such as work item type, assigned to, state, and tags. Based on the keyword that you enter, the filter function will list work items based on any visible/displayed column or field, including tags. Also, you can enter a value for an ID, whether or not the ID field is visible.

To show the filter toolbar, choose the filter icon, or enter the **Ctrl+Shift+f** keyboard shortcut. You can filter all backlogs, boards, and query results.



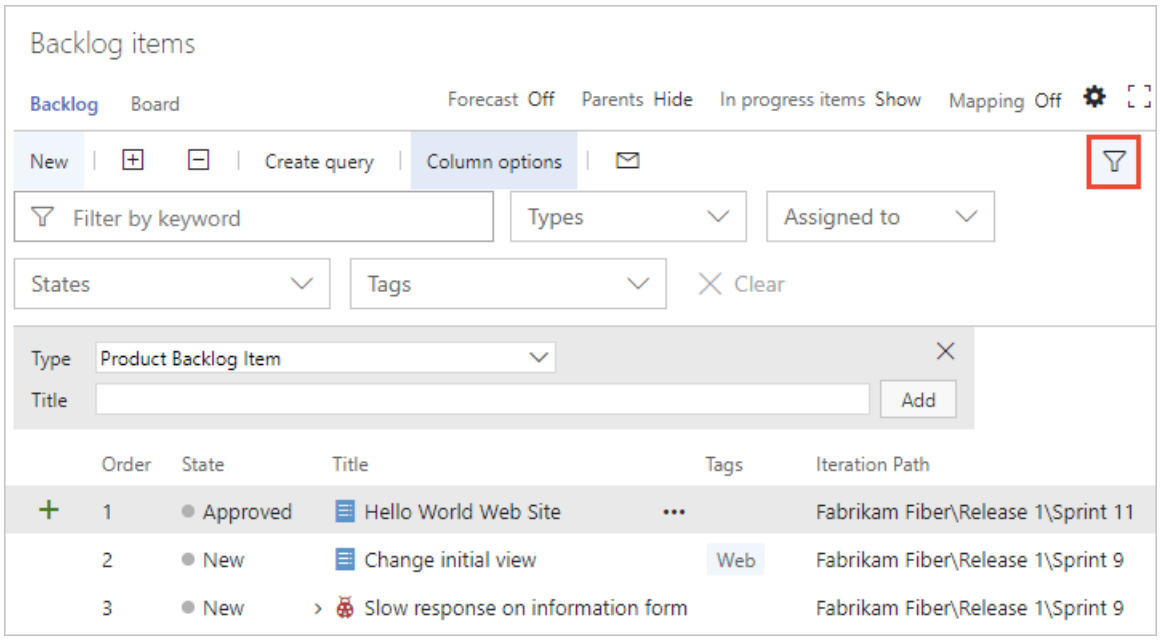
Here we show a filtered backlog based on the keyword "issues". Filtered pages show the filtered icon. The filtered set is always a flat list, even if you've selected to show a hierarchical backlog view.



Filter based on keywords or fields

You can filter work items by typing a keyword or using one or more of the fields provided, such as work item type, assigned to, state, and tags. Based on the keyword that you enter, the filter function will list work items based on any visible/displayed column or field, including tags. Also, you can enter a value for an ID, whether or not the ID field is visible.

To show the filter toolbar, choose the filter icon, or enter the **Ctrl+Shift+f** keyboard shortcut. You can filter all backlogs, boards, and query results.

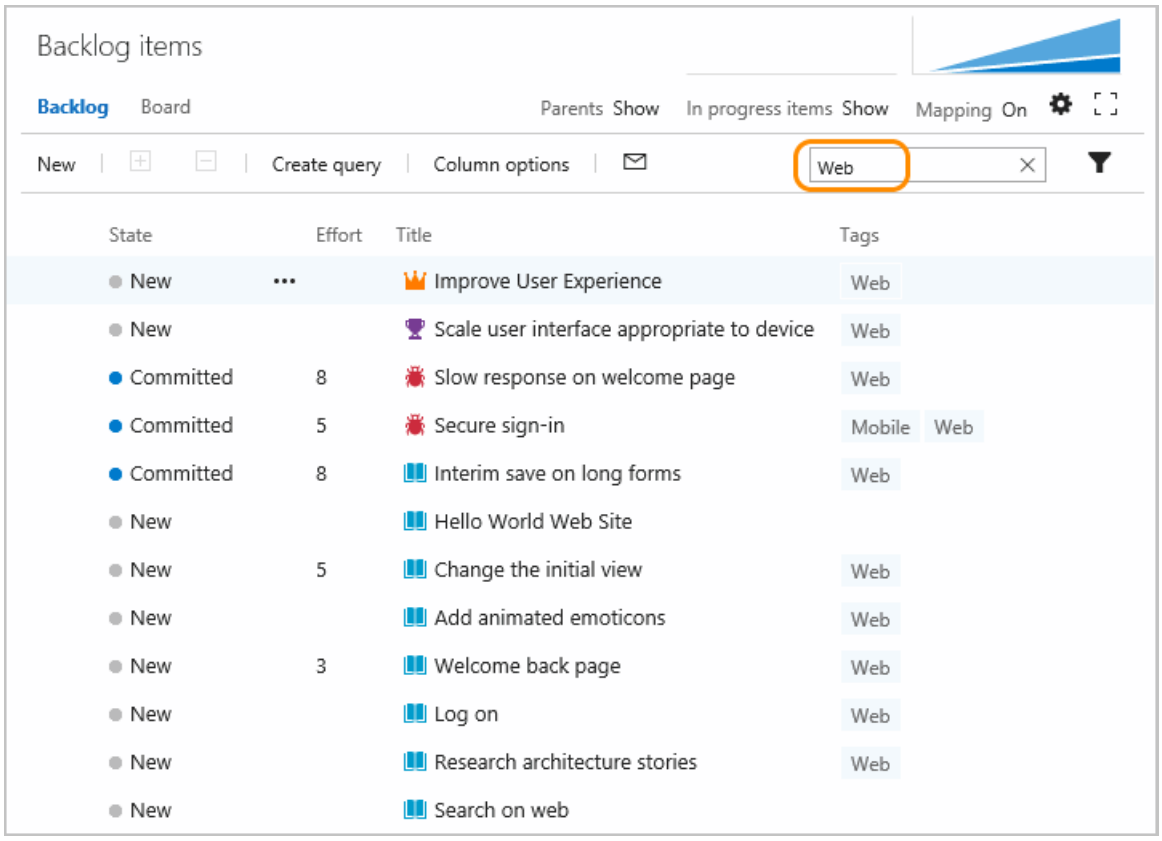


The filtered set is always a flat list, even if you've selected to show parents.

Filter based on keywords

You can use keywords to filter your backlogs or queries. The filter function lists those work items based on any visible/displayed column or field, including tags, based on the keyword that you enter. Also, you can enter a value for an ID, whether or not the ID field is visible.

Here, we filter the backlog to only show items that include 'Web' in any one of the displayed column fields.



The filtered set is always a flat list, even if you've selected to show parents.

Filter based on tags

If you've added tags to your work items, you can filter your backlogs, Kanban boards, and query results using the

tag filter. For backlogs and query results, add Tags as a column option prior to filtering on tags.

To learn more about filtering using tags, see Add tags to work items to categorize and filter lists and boards, Filter lists using tags.

Characters ignored by keyword filter criteria

The filter criteria ignores the following characters: `,` (comma), `.` (period), `/` (forward slash), and `\` (back slash).

The filter criteria ignores the following characters when the field value starts with the character: `{, (, [, !, @, #, $, %, ^, &, *, ~, `, ', "`.

Related articles

- Tags
- Set column options
- Backlog keyboard shortcuts

Copy a list of work items

1/31/2019 • 2 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

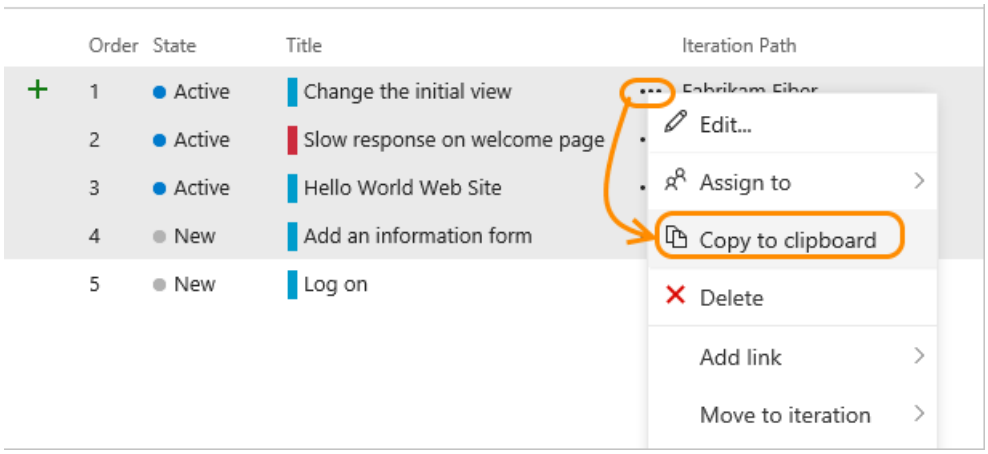
You can copy an HTML formatted table of selected items from either a backlog page or query results list. You can then email this list using your choice of email client, or paste into a Word document, Excel spreadsheet, or other application.

> **TIP**
> The data copied with **Copy to clipboard** is the same as that copied when you select **Email ...**.

> **TIP**
> The data copied with **Copy as HTML** is the same as that copied when you select **Email selected work items**. If you don't have an SMTP server configured, you can work around this by using **Copy as HTML**. For on-premises TFS, all email actions require an SMTP server to be configured.

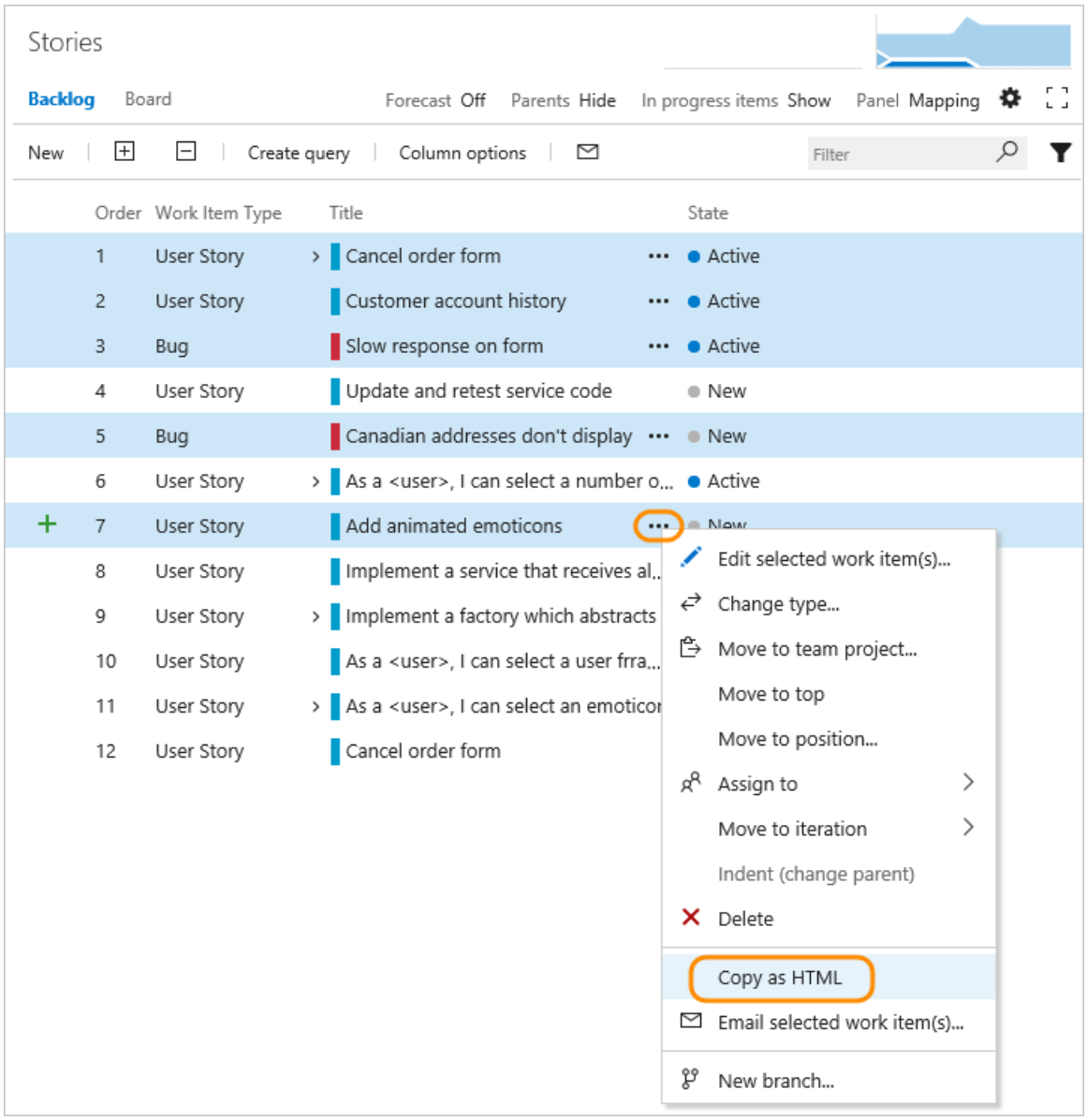
1. From the web portal, open a backlog or query results page, and multi-select the work items you want to copy to the clipboard.
2. Open the ... context menu of one of the selected work items, and then choose **Copy to clipboard** or **Copy as HTML**.

   Here we multi-select from the product backlog and choose **Copy to clipboard**.



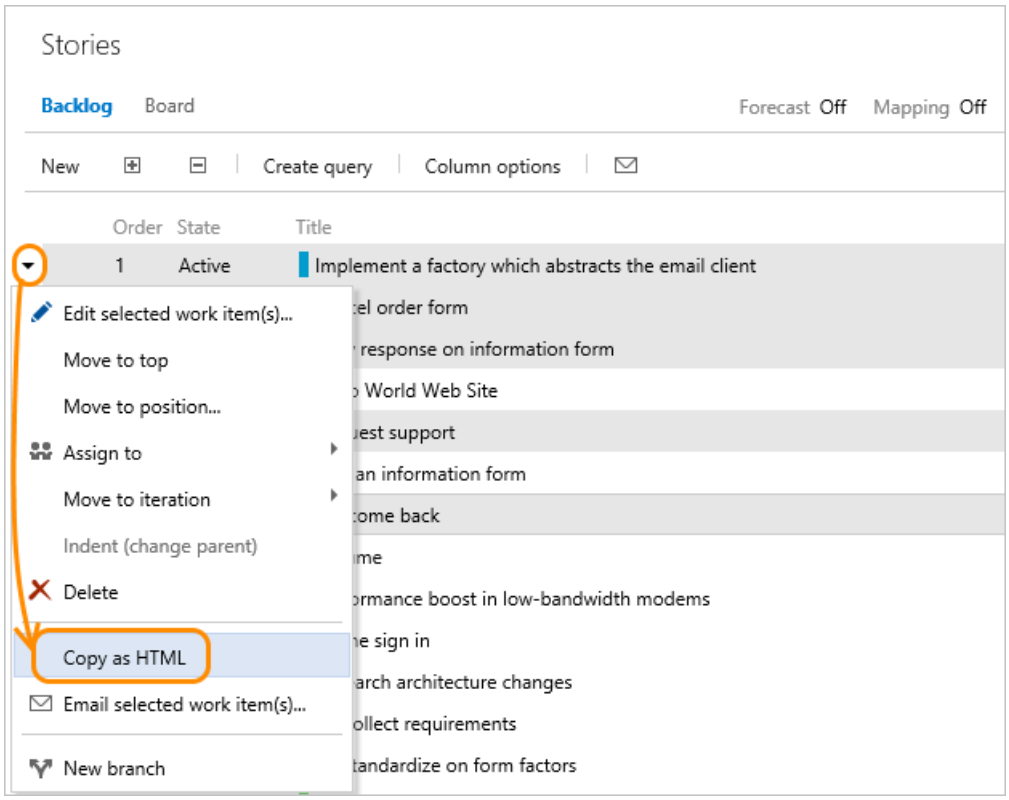
1. From the web portal, open a backlog or query results page, and multi-select the work items you want to copy to the clipboard.
2. Open the ... context menu of one of the selected work items, and then choose **Copy as HTML**.

   Here we multi-select from the backlog page.



1. From the web portal, open a backlog or query results page, and multi-select the work items you want to copy to the clipboard.
2. Open the ▾ context menu of one of the selected work items, and then choose **Copy as HTML**.

   Here we multi-select from the backlog page.



Paste the contents into your email client

Once you've copied your list, you can optionally paste the contents of the clipboard into your email client or other application. To open a linked work item, requires users to have read access to the project or area node for those work items.

The formatted table contains a link to each work item included in your selected results list. A link to a query that will open only those work items selected is also provided.

ID	Work Item Type	Title	State
398	User Story	Cancel order form	Active
468	User Story	Customer account history	Active
391	Bug	Slow response on form	Active
395	Bug	Canadian addresses don't display	New
346	User Story	Add animated emoticons	New

Open as query

Related articles

- Email or print work items
- Share information within work items and social tools

Bulk modify work items

1/31/2019 • 11 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Use bulk modify when you need to quickly make the same change to a number of work items. For example, you might want to change the priority of several bugs or reassign several tasks to the same team member. Use the web portal to quickly modify one or more fields for work items that will contain the same value.

> **TIP**
> To add work items in bulk or update multiple fields with different values, use Excel. You can't perform a bulk add of work items through the web portal.

With bulk modify, you can edit fields, add or remove tags, reassign work, or move work to a specific sprint. You can also use bulk modify to change the work item type or move work items to other projects. The options available to you depend on the platform you work from and the permissions you've been granted.

In this article you'll learn:

- How to multi-select work items from a list and open the context menu
- Edit one or more fields of several work items
- Assign work from a backlog to a sprint using drag-and-drop
- Add or remove tags from several work items

- How to multi-select work items from a list and open the context menu
- Edit one or more fields of several work items
- Assign work from a backlog to a sprint using drag-and-drop

Prerequisites

- You must connect to a project. If you don't have a project yet, create one.
- You must be added to a project as a member of the **Contributors** or **Project Administrators** security group. To get added, Add users to a project or team.
- To add or modify work items, you must be granted **Stakeholder** access or higher. For details, see About access levels.
- To view or modify work items, you must have your **View work items in this node** and **Edit work items in this node** permissions set to **Allow**. By default, the **Contributors** group has this permission set. To learn more, see Set permissions and access for work tracking.

> **NOTE**
> Users with **Stakeholder** access for a public project have full access to backlog and board features just like users with **Basic** access. For details, see About access levels.

- You must connect to a project. If you don't have a project yet, create one.
- You must be added to a project as a member of the **Contributors** or **Project Administrators** security group. To get added, Add users to a project or team.
- To add or modify work items, you must be granted **Stakeholder** access or higher. For details, see About access

levels.

- To view or modify work items, you must have your **View work items in this node** and **Edit work items in this node** permissions set to **Allow**. By default, the **Contributors** group has this permission set. To learn more, see Set permissions and access for work tracking.

Supported tasks

All of the following actions can be performed by team members that belong to the Contributors group. Members provided with Stakeholder access can perform multi-select, bulk edit, change type, email, and copy as HTML/copy to clipboard actions. For details, see Work as a stakeholder.

AREA	TASK
Multi-select work items	• Multi-select-query results • Multi-select-backlog
Link work items	• Link to a new item • Link to an existing item • New branch[1]
Bulk edit/update/delete	• Edit field(s) • Assign to • Move to iteration • Change position • Change parent • Add/remove tags • Update from template[1] • Delete [1]
Copy, clone, change type, move, or email work items	• Clone or copy a single item [2] • Copy as HTML/Copy to clipboard • Email selected item(s) • Change work item type[1] • Move items to another project[1, 3]

Notes:

1. You can't perform certain functions on work items whose WITs belong to the Hidden Types Category. This includes all work items that track tests—such as test cases, shared steps, and shared parameters—code review requests and responses, and feedback requests and responses.
2. You can choose to copy or clone a single work item from a query results list or from the Actions menu of the work item form. You can only perform a clone or copy action for a single work item. Choose Copy work item when you want to create a copy of a work item and change its work item type. Choose Clone when you want to create another instance of the work item without changes to its work item type.
3. You must be a member of the Project Administrators group or be granted explicit permissions to move work items.

> **NOTE**
> To exercise the **Change work item type** or **Move work items to another project**, you must have disabled the data warehouse.

AREA	TASK
Multi-select work items	• Multi-select-query results • Multi-select-backlog
Link work items	• Link to a new item • Link to an existing item • New branch[1]
Bulk edit/update/delete	• Edit field(s) • Assign to • Move to iteration • Change position • Change parent • Add/remove tags • Update from template[1] • Delete [1]
Copy, clone, or email work items	• Clone or copy a single item [2] • Copy as HTML/Copy to clipboard • Email selected item(s)

Notes:

1. You can't perform certain functions on work items whose WITs belong to the Hidden Types Category. This includes all work items that track tests—such as test cases, shared steps, and shared parameters—code review requests and responses, and feedback requests and responses.
2. You can choose to copy or clone a single work item from a query results list or from the Actions menu of the work item form. You can only perform a clone or copy action for a single work item. Choose Copy work item when you want to create a copy of a work item and change its work item type. Choose Clone when you want to create another instance of the work item without changes to its work item type.
3. For on-premises TFS, you must have an SMTP server configured for your deployment.

AREA	TASK
Multi-select work items	• Multi-select-query results • Multi-select-backlog
Link work items	• Link to a new item • Link to an existing item
Bulk edit/update/delete	• Edit field(s) • Assign to • Move to iteration • Change position • Change parent • Delete [1]

Copy, clone, or email work items	• Clone or copy a single item [2] • Copy as HTML/Copy to clipboard • Email selected item(s)

Notes:

1. You can't perform certain functions on work items whose WITs belong to the Hidden Types Category. This includes all work items that track tests—such as test cases, shared steps, and shared parameters—code review requests and responses, and feedback requests and responses.
2. You can choose to copy or clone a single work item from a query results list or from the Actions menu of the work item form. You can only perform a clone or copy action for a single work item. Choose Copy work item when you want to create a copy of a work item and change its work item type. Choose Clone when you want to create another instance of the work item without changes to its work item type.
3. For on-premises TFS, you must have an SMTP server configured for your deployment.

Bulk edit multi-selected work items

To start a bulk edit, begin by multi-selecting the work items you want to modify, either from the query results or the backlog. You can craft your query using the query editor or search box.

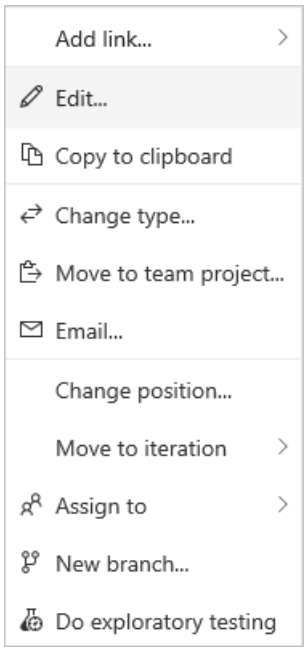
Multi-select of work items on the backlog and sprint backlogs works in the same way as multi-select works within query results.

(Requires TFS 2015.1 or later versions)

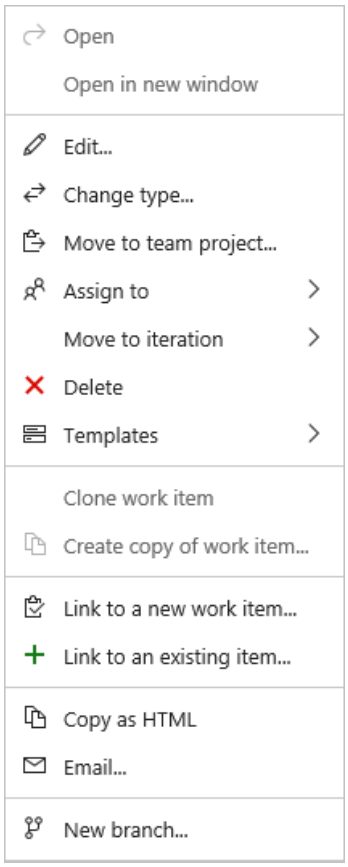
You can use bulk modify by selecting work items from the backlog page or query results list. From the backlog page context menu, you can change the backlog priority of several items (Change position or Move to position), assign them to a team member, move them to a different sprint, or map them to a feature.

The menu options available to you change depending on the platform you work from and whether you work from a backlog page or query results list.

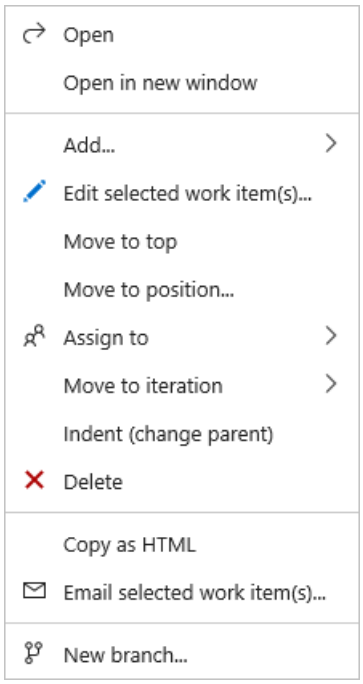
Backlog menu



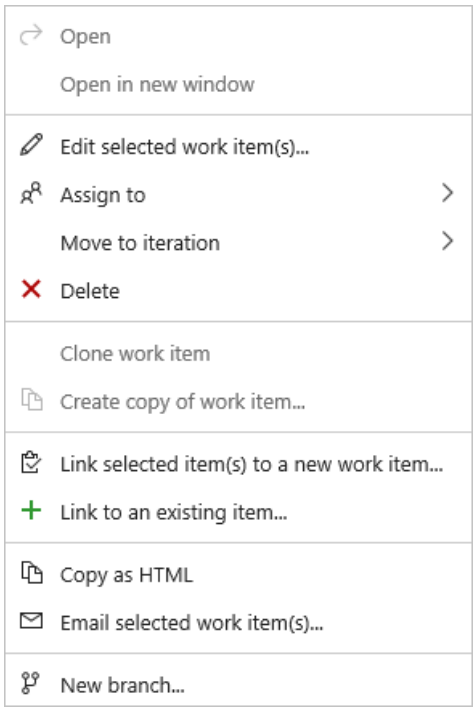
Query results multi-select menu



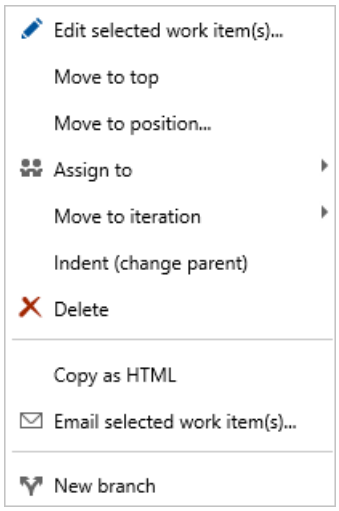
Backlog multi-select menu



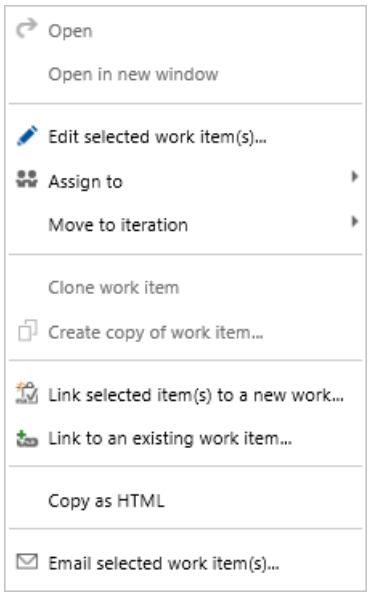
Query results multi-select menu



Backlog multi-select menu



Query results multi-select menu

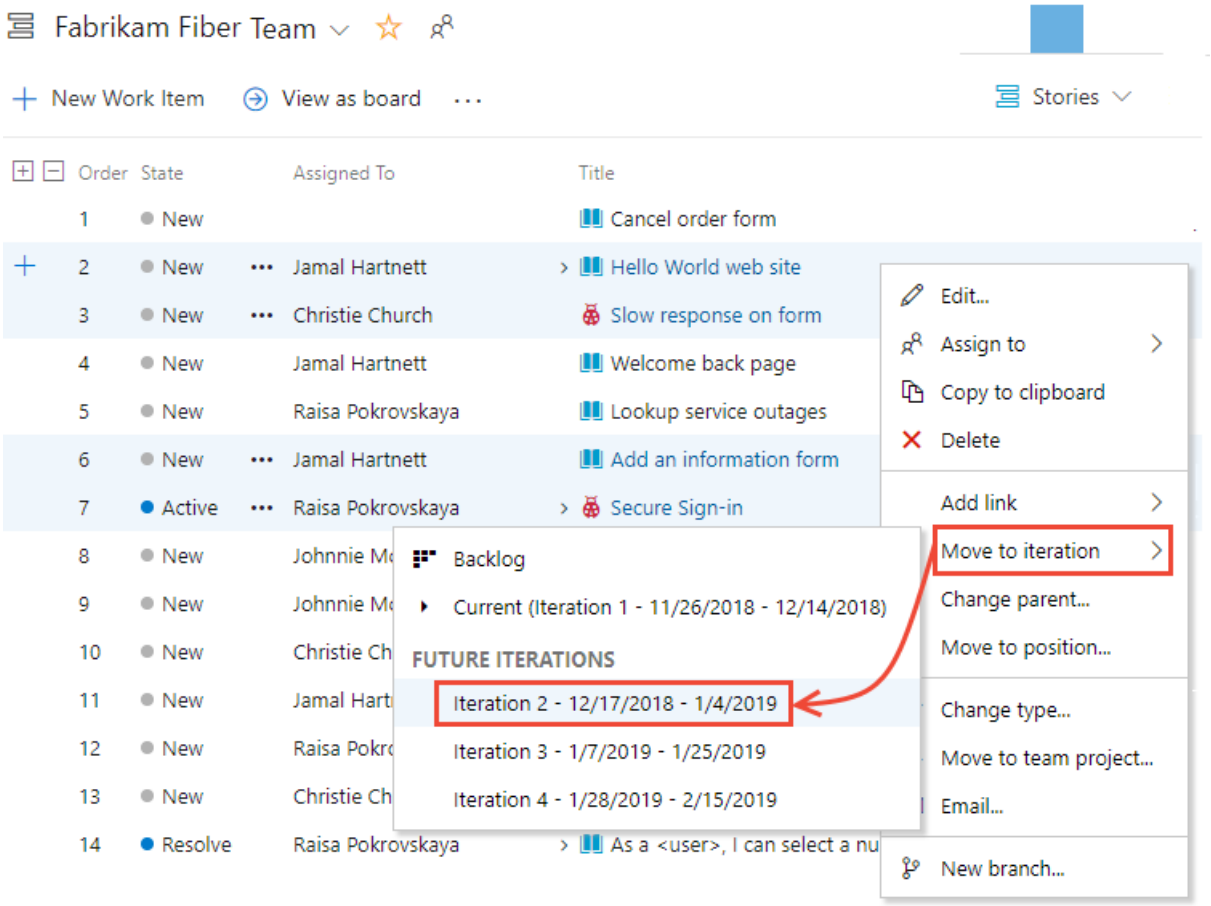


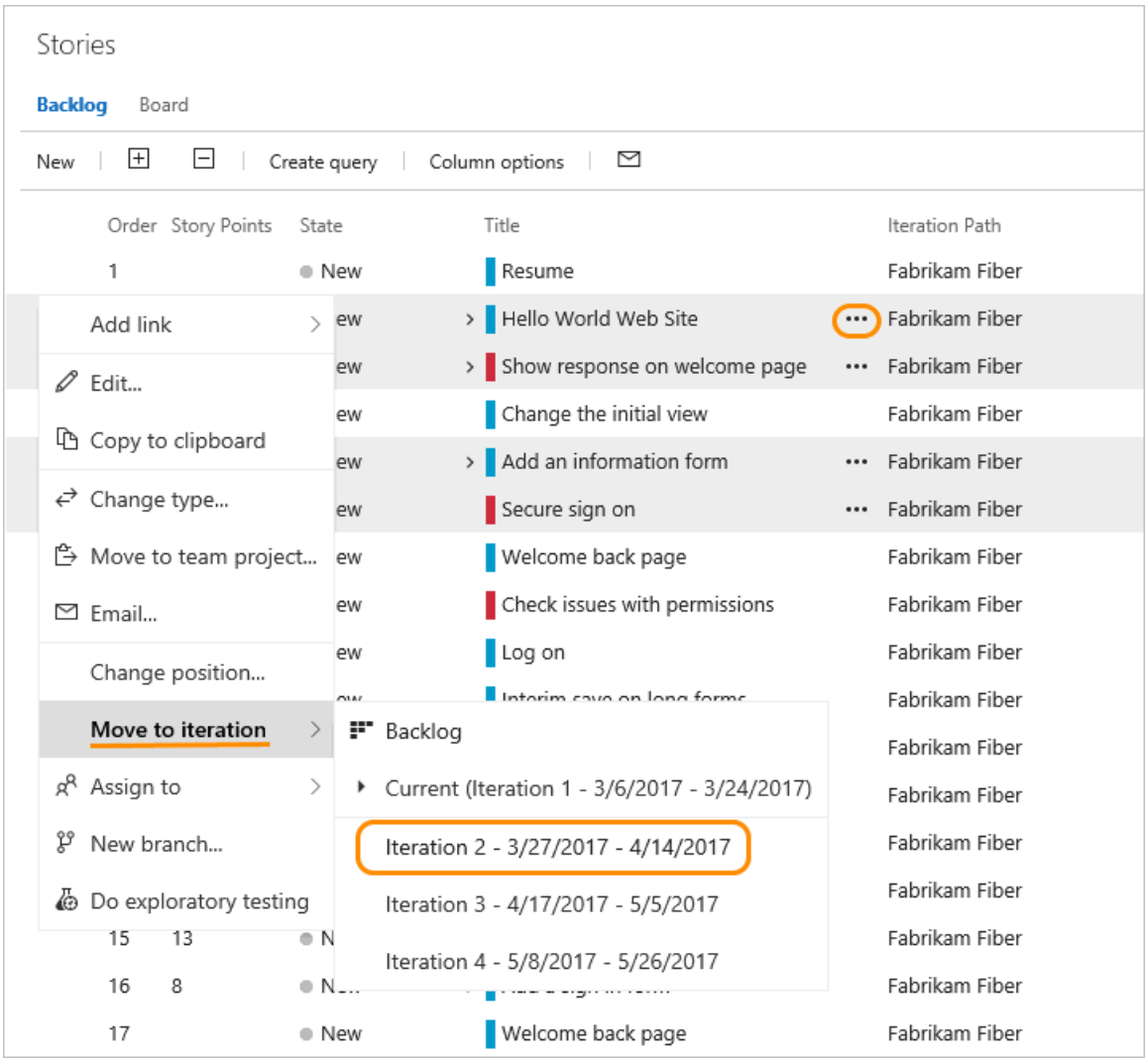
To multi-select and open the context menu

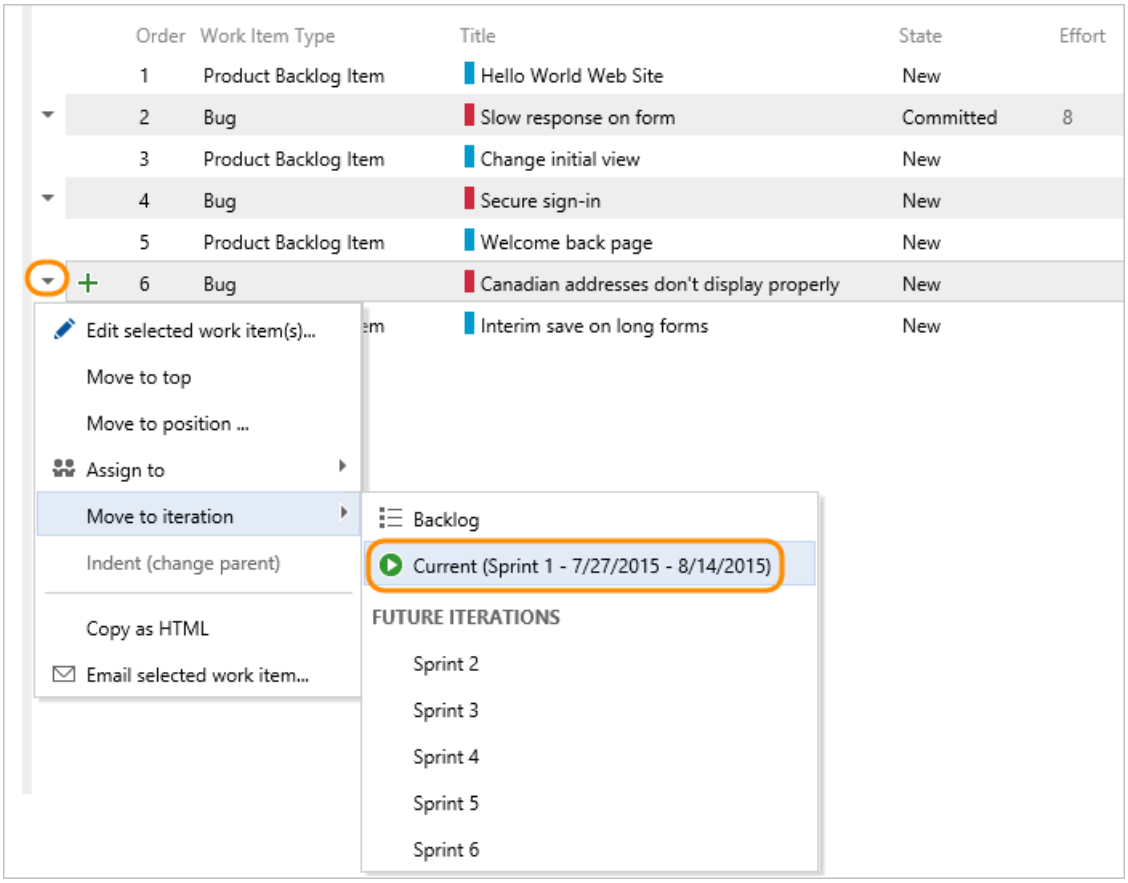
To select several items in a sequence, hold down the shift key. To select several non-sequential items, use the Ctrl key. Then, you can either drag the selected items to a new position within the backlog, to a different sprint.

To open the context menu, click (···) or (▾), and then choose the option from the menu.

Here, we use the context menu to move several non-sequential items to the current sprint.




Stories
Backlog
Board
New
Create query
Column options
Order
Story Points
State
Title
Iteration Path
1
New
Resume
Fabrikam Fiber
Hello World Web Site
Show response on welcome page
Change the initial view
Add an information form
Secure sign on
Welcome back page
Check issues with permissions
Log on
Add link
Edit...
Copy to clipboard
Change type...
Move to team project...
Email...
Change position...
Move to iteration
Assign to
New branch...
Do exploratory testing
Backlog
Current (Iteration 1 - 3/6/2017 - 3/24/2017)
Iteration 2 - 3/27/2017 - 4/14/2017
Iteration 3 - 4/17/2017 - 5/5/2017
Iteration 4 - 5/8/2017 - 5/26/2017
15
13
16
8
17
New
Welcome back page

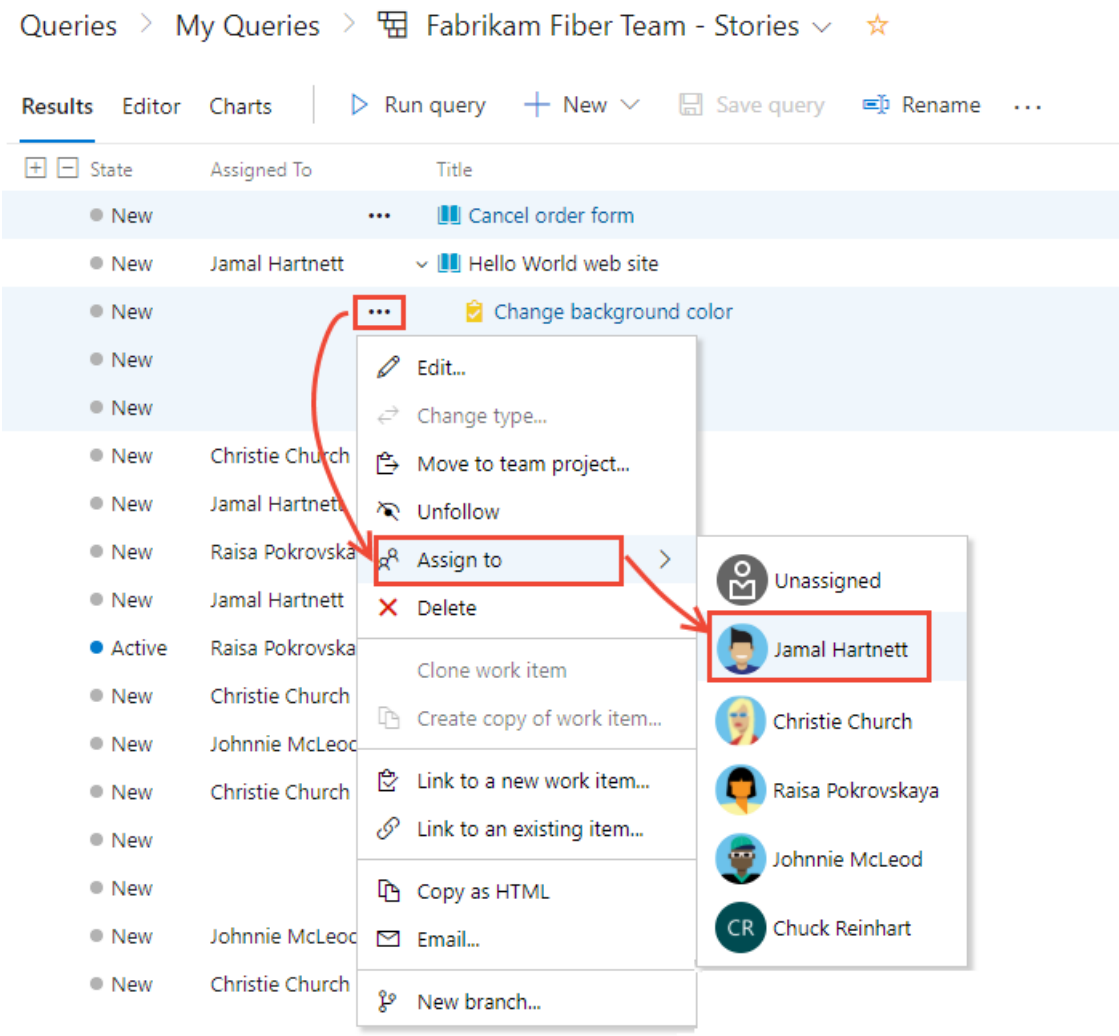

Order
Work Item Type
Title
State
Effort
1
Product Backlog Item
Hello World Web Site
New
2
Bug
Slow response on form
Committed
8
3
Product Backlog Item
Change initial view
New
4
Bug
Secure sign-in
New
5
Product Backlog Item
Welcome back page
New
6
Bug
Canadian addresses don't display properly
New
Interim save on long forms
New
Edit selected work item(s)...
Move to top
Move to position ...
Assign to
Move to iteration
Indent (change parent)
Copy as HTML
Email selected work item...
Backlog
Current (Sprint 1 - 7/27/2015 - 8/14/2015)
FUTURE ITERATIONS
Sprint 2
Sprint 3
Sprint 4
Sprint 5
Sprint 6

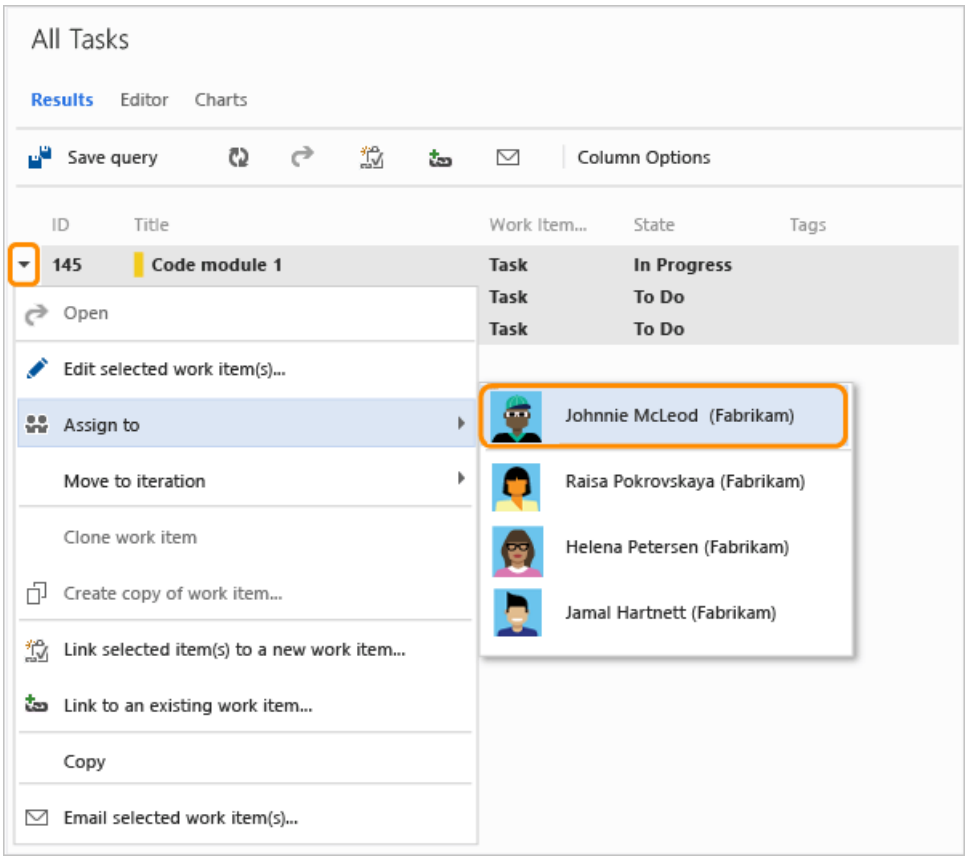
TIP

Use the backlog **Create Query** feature to create a query with the backlog items. You can then open the query within the web portal or Excel to perform additional bulk updates.

Reassign work items

With work items selected, open the context menu for any selected item, and reassign all of them. By doing this, you can quickly assign them to a member of your team or to another sprint or iteration.



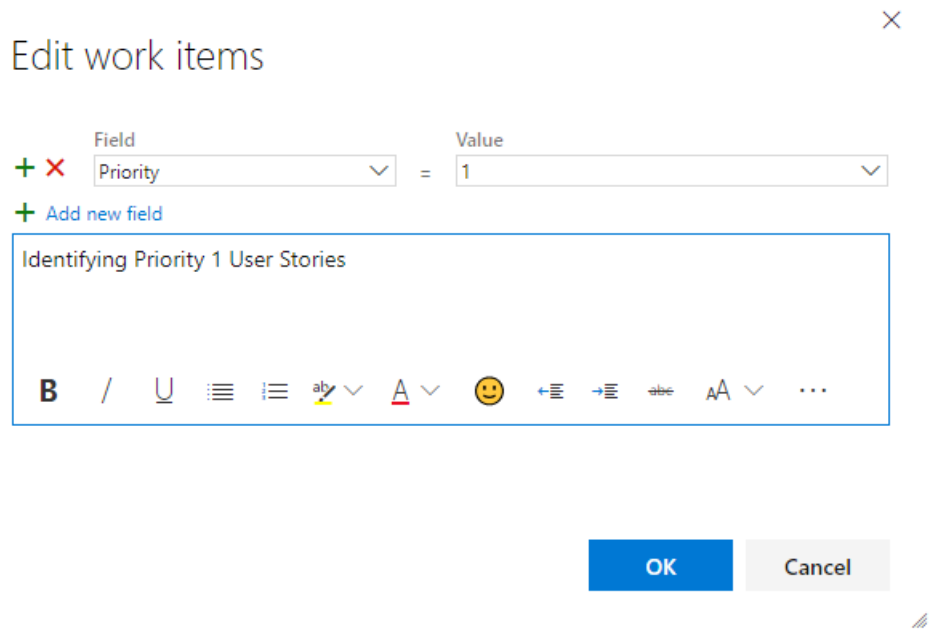


To learn more about the *Assign To* and *Iteration Path* fields, see Query by assignment, workflow or Kanban board changes and Query by area or iteration path.

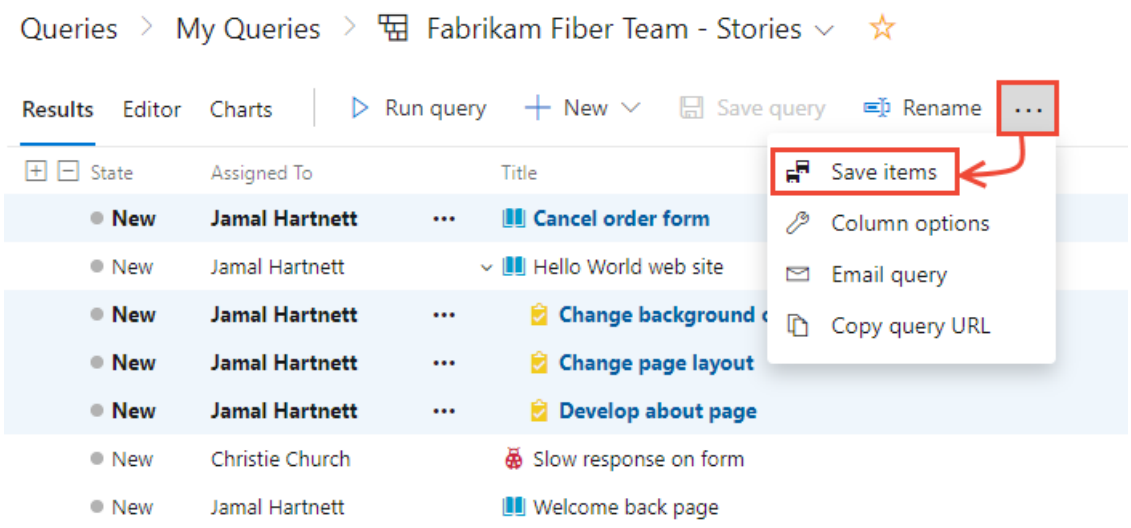
Edit one or more fields

To assign or modify several fields, choose Edit from the context menu of one of the selected work items. Enter a value for each field that you want to update.

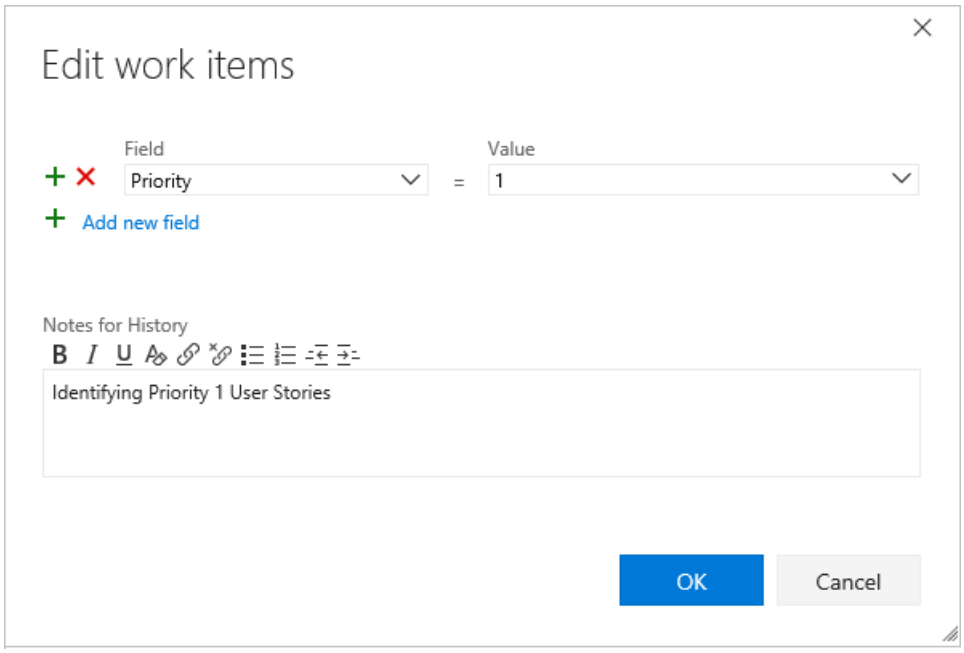
1. For audit purposes, you can type a description for your bulk update task. To learn more about each field, see the Work item field index.



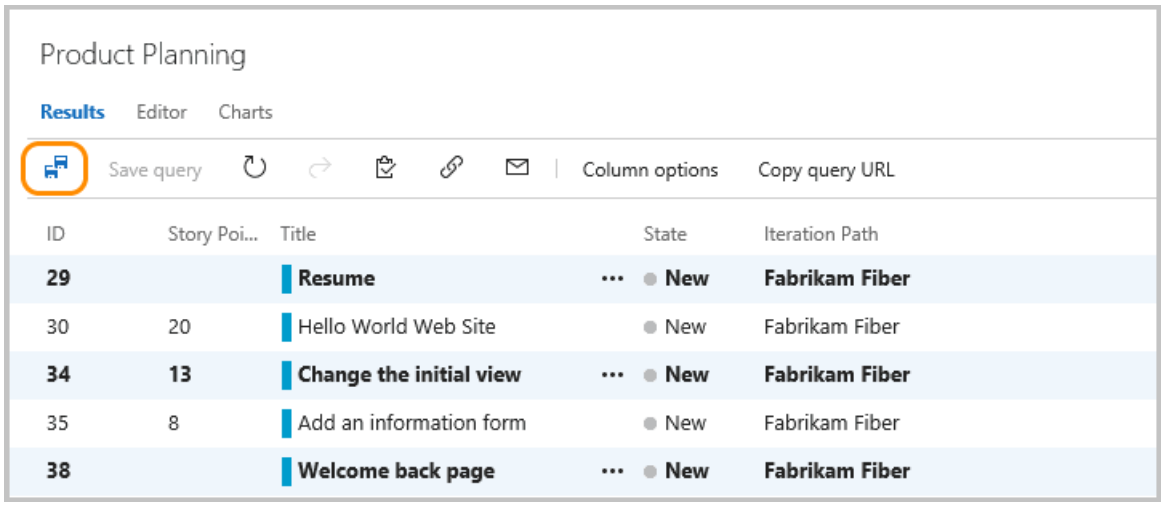
1. From the Query results page, you must save all work items that you bulk-modified. When you bulk modify items from the backlog, they are automatically saved. Work items shown in bold text indicate that local changes have not yet been saved to the data store.



1. For audit purposes, you can type a description for your bulk update task. To learn more about each field, see the Work item field index.



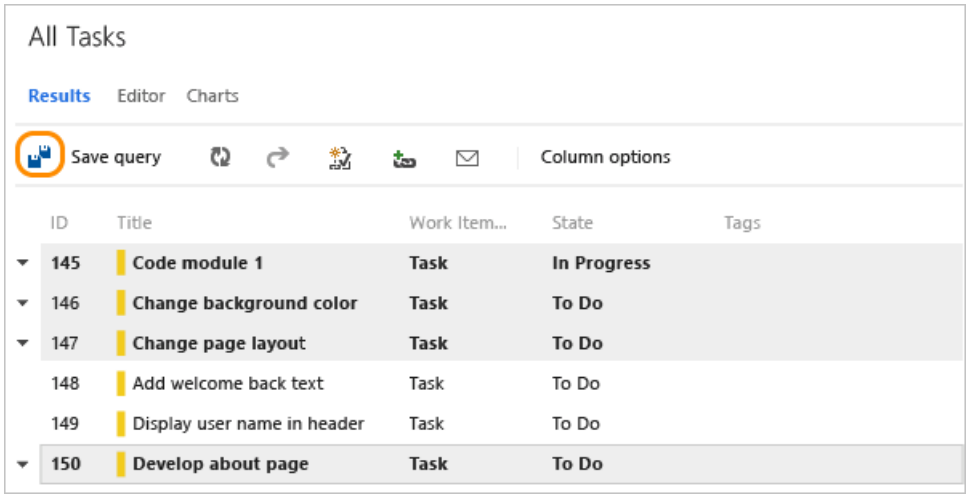
2. From the Query results page, you must save all work items that you bulk-modified. When you bulk modify items from the backlog, they are automatically saved. Work items shown in bold text indicate that local changes have not yet been saved to the data store.



1. For audit purposes, you can type a description for your bulk update task. To learn more about each field, see

the Work item field index.

2. Save all work items that you bulk-modified. Work items shown in bold text indicate that local changes have not yet been saved to the data store.



Move work items to a sprint

> **NOTE**
>
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

> **NOTE**
>
> Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

> **NOTE**
>
> Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

- New navigation
- Previous navigation

From any product, sprint, or portfolio backlog, you can drag a multi-selected list of work items and drop it onto a sprint in the **Planning** pane to change it's iteration path. (Not supported for users with **Stakeholder** access.)

1. To open the **Planning** pane, choose the view options icon and select **Planning**. You can choose to set **In Progress items** to On or Off.

   The set of sprints selected for your team appears. If you don't see any sprints listed, you can add sprints or select existing sprints for your team's use. To learn how, see Define sprints.

2. You can drag and drop items from the **Backlog** onto a sprint.

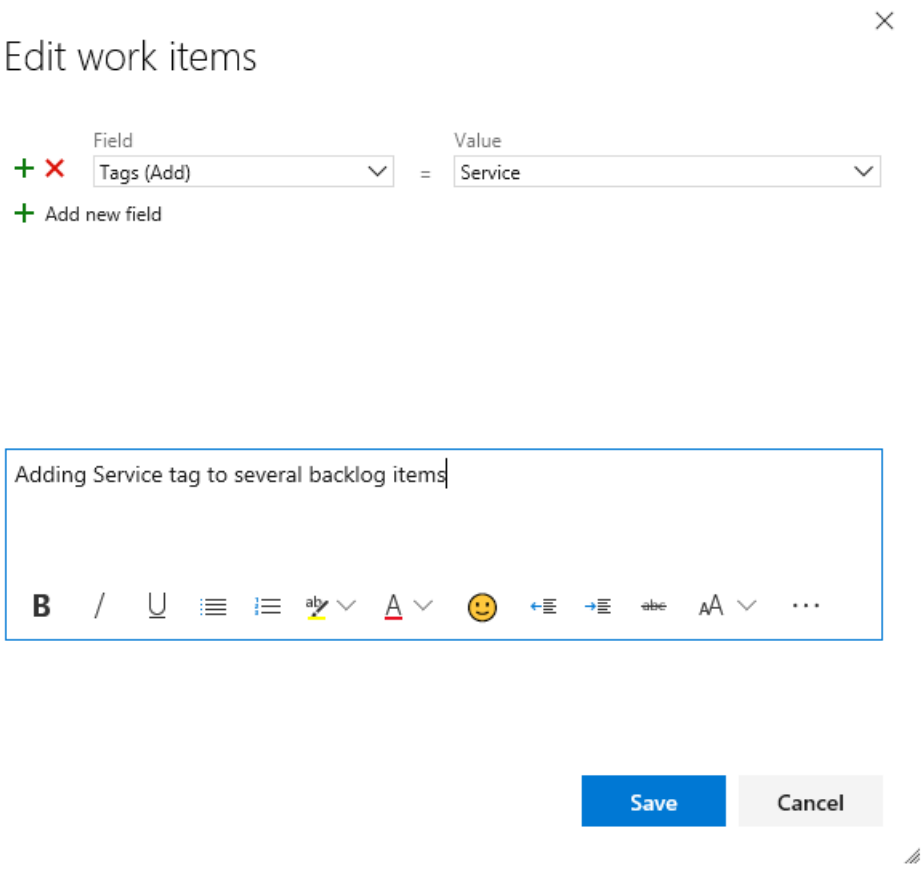
   This action will update the Iteration Path of the backlog items and any of its child tasks to the sprint you selected.

Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

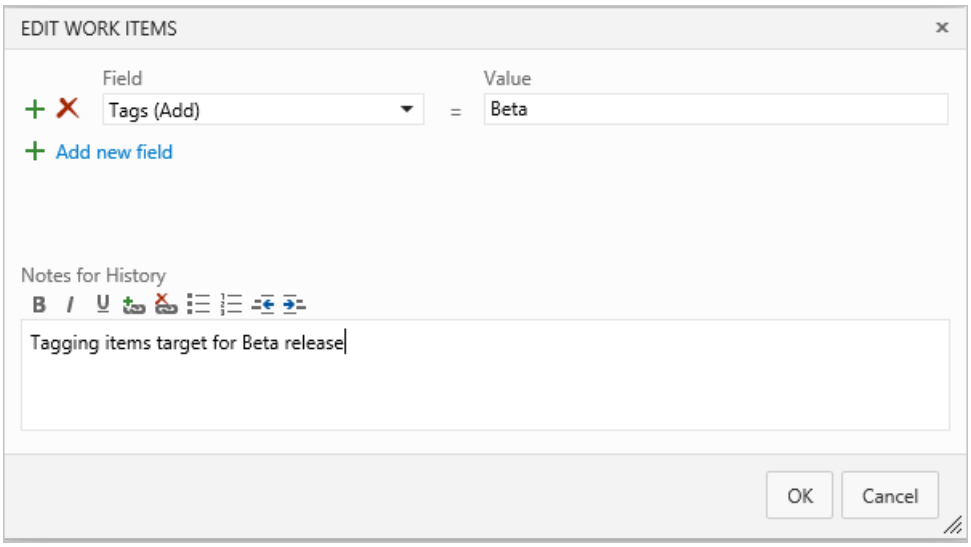
Bulk modify tags

From the Edit work items dialog, select **Tags (Add)** or **Tags (Remove)**.

Here we choose to add the *Service* tag to the selected work items.



Here we choose to add the *Beta* tag to the selected work items.



Bulk update of work items to add or remove tags from the web portal requires TFS 2015.2 or later version. To bulk edit work items when connecting to TFS 2015.1 or earlier versions, use Excel.

Related articles

To add fields or customize a work item form, see Customize your work tracking experience. The method you use depends on the process model that supports your project.

Migrate or change a large number of work items

For large scale, organizational moves, use the REST API calls for Work item batch operations.

At this time, you can't move work items to a different organization or collection. You can only migrate work item information by exporting and then importing them using Excel.

Add multiple values to a field

If you have implemented a custom control that supports multiple values, you can use Excel to bulk edit the field, but you can't modify it using the web portal. In the web portal, you can only select a single value for the field.

Change column options

1/31/2019 • 3 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

From each backlog page or query, you can add or remove columns. Or, you can drag a column to a new position. Your settings persist for each page you customize and are only valid for your views.

> **TIP**
> Unlike a query result, you can't sort a backlog by a column. However, you can use the **Create Query** link on each backlog to create a query that you can sort on any field column you choose.

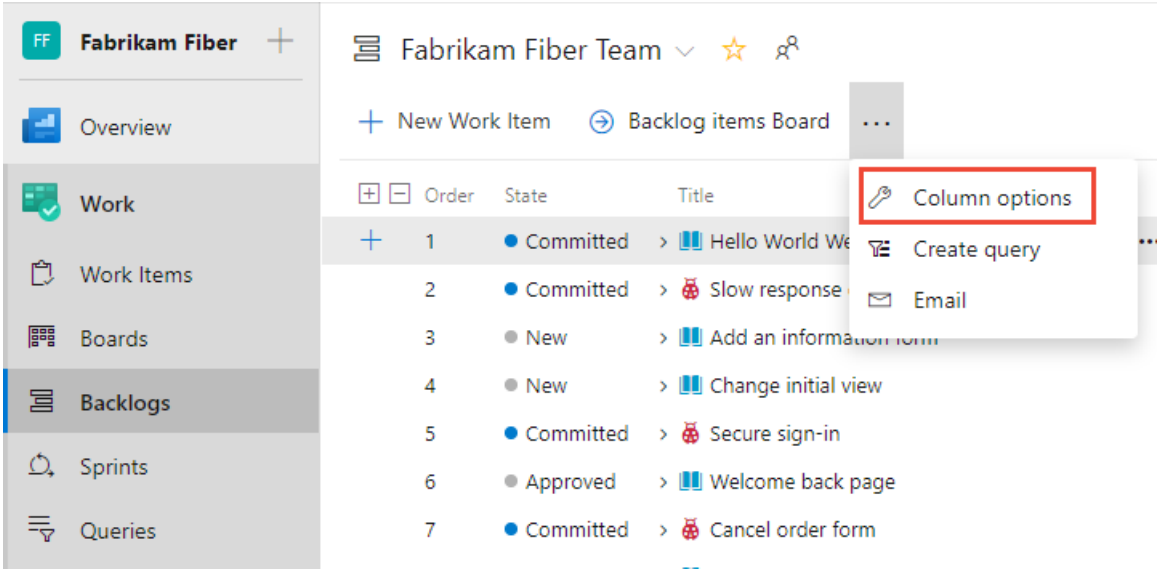
Start by opening the **Column Options** dialog. Each user can set their own column options which persist for each product or portfolio backlog across the user's sessions.

> **NOTE**
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

> **NOTE**
> Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

> **NOTE**
> Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

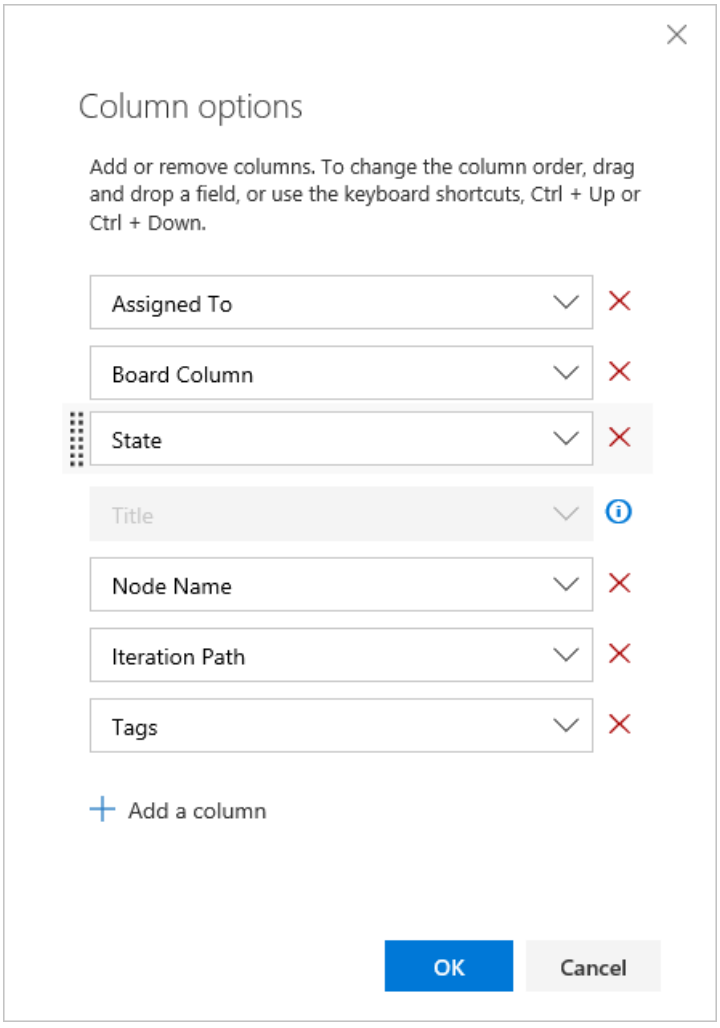
- New navigation
- Previous navigation



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

In the Column options dialog, choose **Add a column** to add a field that isn't shown. To change the order of the fields, drag-and-drop the field where you want it within the set of selected fields. And, to remove a field, choose the ✕.

> **NOTE**
> The following dialog is available from TFS 2018.2 and later versions.

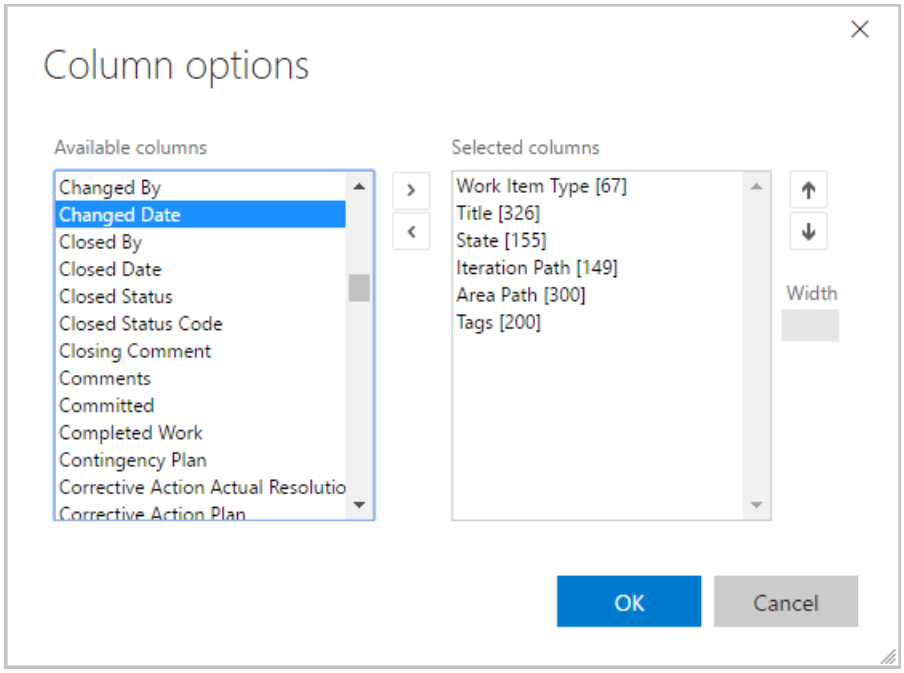


You can add most fields listed in the Work item field index. Note that all fields defined within the project collection or organization are available for selection, even those that aren't used for your particular project. You can view the list of fields defined for your collection from **Organization Settings>Process>Fields**

You can add most fields listed in the Work item field index. Note that all fields defined within the project collection or organization are available for selection, even those that aren't used for your particular project. If your project uses the Inherited process model, you can view the list of fields defined for your collection from **Organization Settings>Process>Fields**

You can add most fields listed in the Work item field index. Note that all fields defined within the project collection or organization are available for selection, even those that aren't used for your particular project.

Find the field you want to add from the **Available columns** set and choose **>** (greater-than character) to move it into the **Selected columns** list. You can then change the order of the columns with the ↑/↓ up and down arrows. To remove a field, select it and then choose the **<** (less-than character).



You can add most fields listed in the Work item field index. Note that all fields defined within the project collection or organization are available for selection, even those that aren't used for your particular project.

Use keyboard shortcuts to change the column order, column width, or sort options

You can change the column order, column size, or sort options by using the following keyboard commands:

- To change the column order, click on the field and drag it to a new location
- To re-size a column, click the column divider to the right of the field and drag to a new location
- For query results:
  - Add the field as a column in order to sort by that field
  - To sort by a column, hold down the shift key and click on the field
  - To reverse the sort order, shift-click on the field
  - To sort by multiple columns, shift-click on each column in the order you want to sort

For additional keyboard shortcuts, enter **Shift-?** to display available commands based on the page you're on.

Related articles

- Work item field index
- Backlogs, boards, and plans
- Create managed queries

Set permissions and access for work tracking

2/5/2019 • 8 minutes to read • Edit Online

Azure DevOps Services | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

You grant or restrict access to various work tracking features by granting users or groups specific permissions for an object, project, or collection. Or, when you assign a user as a team administrator, they have permissions to manage all assets for the specific team. Add users to the Contributors group to provide access to most features as listed in Permissions and access for work tracking.

> **NOTE**
> For public projects, Stakeholder access gives users greater access to work tracking features and full access to Azure Pipelines. To learn more, see About access levels, Stakeholder access.

ROLE OR PERMISSION LEVEL	FUNCTIONAL AREAS SET
Team administrator role	• Manage teams and configure team tools • Define and edit team dashboards • Add and manage team-level work item templates • Add team administrators To add a user to the team administrator role, see Add a team administrator.
Object-level permissions	• Modify work items under an area path • Create and edit nodes under an area path or iteration path • Define and edit queries or query folders • Define and edit Delivery Plans
Project-level permissions	• Create work item tags • Delete and restore work items • Move work items out of a project • Permanently delete work items • Delete test artifacts • Edit shared work item queries • Add teams and team administrators • Create and manage area and iteration paths • Edit project-level permissions • Customize a project (On-premises XML or Hosted process models)
Project collection-level permissions	• Create, delete, or edit a process (Inheritance process model) • Delete field from account (Inheritance process model) • Manage process permissions (Inheritance process model) • Edit collection level permissions Project collection-level permissions include all permissions you can set at the project-level.

Edit project-level or collection-level/instance-level information

The **Edit project-level information** and **Edit instance-level information** (also referred to as Edit collection-level information) provide permissions to several work tracking features as summarized below. To add users or set permissions at these levels, see Add administrators, set permissions at the project-level or project collection-level.

EDIT PROJECT-LEVEL INFORMATION	EDIT INSTANCE-LEVEL INFORMATION
• Add and administer teams and all team-related features • Create and modify areas and iterations • Edit shared work item queries • Edit project level permission ACLs • Manage process templates • Customize a project • Create and modify global lists • Edit event subscriptions (email or SOAP) on project level events.	• Add and administer teams and all team-related features • Create and modify areas and iterations • Edit check-in policies • Edit shared work item queries • Edit project level and collection level permission ACLs • Manage process templates • Customize a project or process • Create and modify global lists • Edit event subscriptions (email or SOAP) on project or collection level events.

Create child nodes, modify work items under an area path

Area path permissions let you grant or restrict access to edit or modify work items, test cases, or test plans assigned to those areas. You can restrict access to users or groups. You can also set permissions for who can add or modify areas or iterations for the project.

> **NOTE**
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled. For more information, see Web portal navigation.

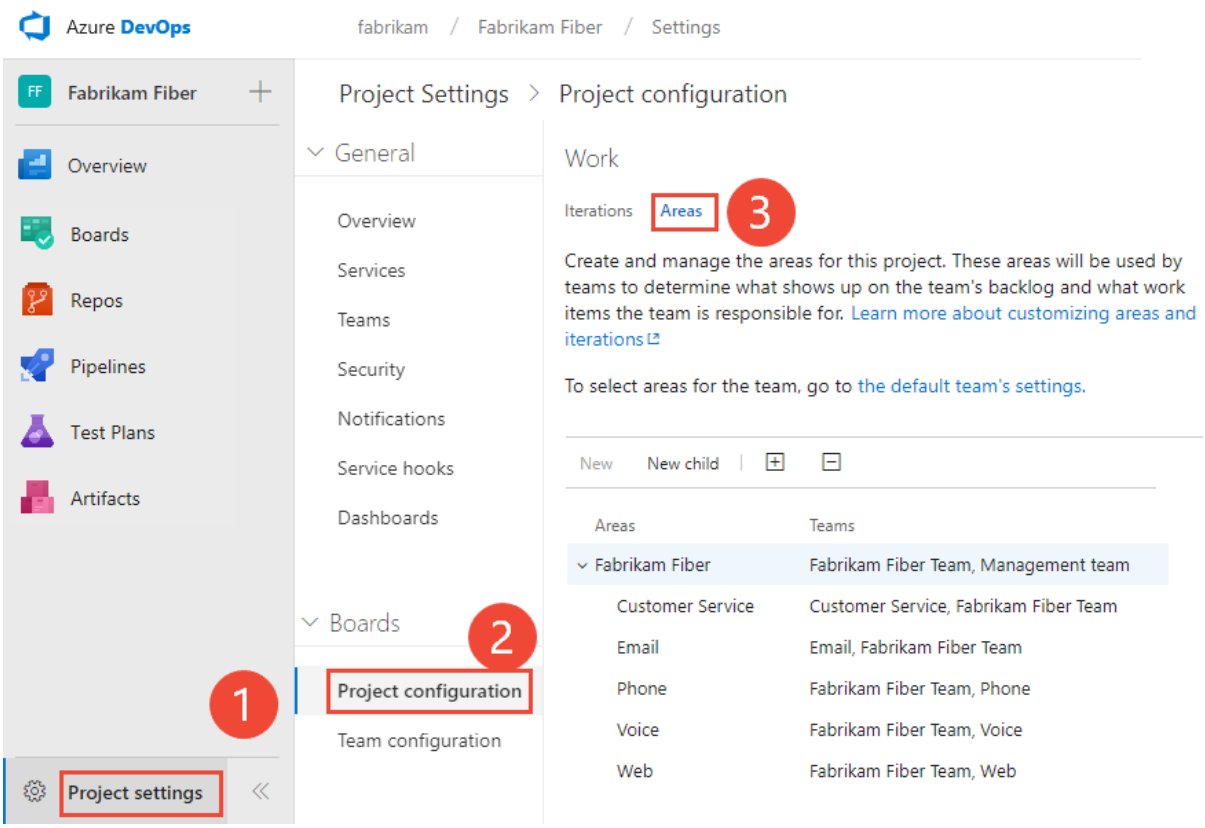
> **NOTE**
> Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface. For more information, see Web portal navigation.

> **NOTE**
> Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface. For more information, see Web portal navigation.

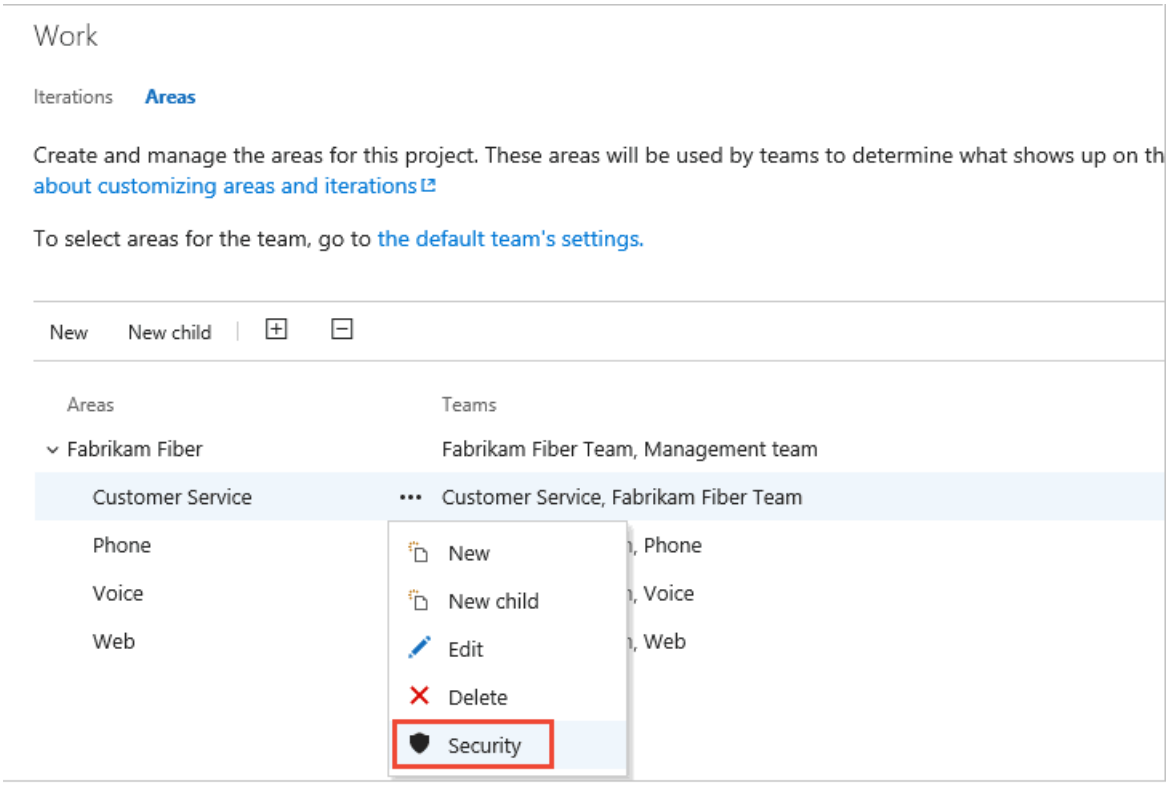
- New navigation
- Previous navigation

You define both areas and iterations for a project from the **Project Settings>Work>Project configuration**.

1. Choose (1) **Project Settings**, expand **Work** if needed, and choose (2) **Project configuration** and then (3) **Areas**.

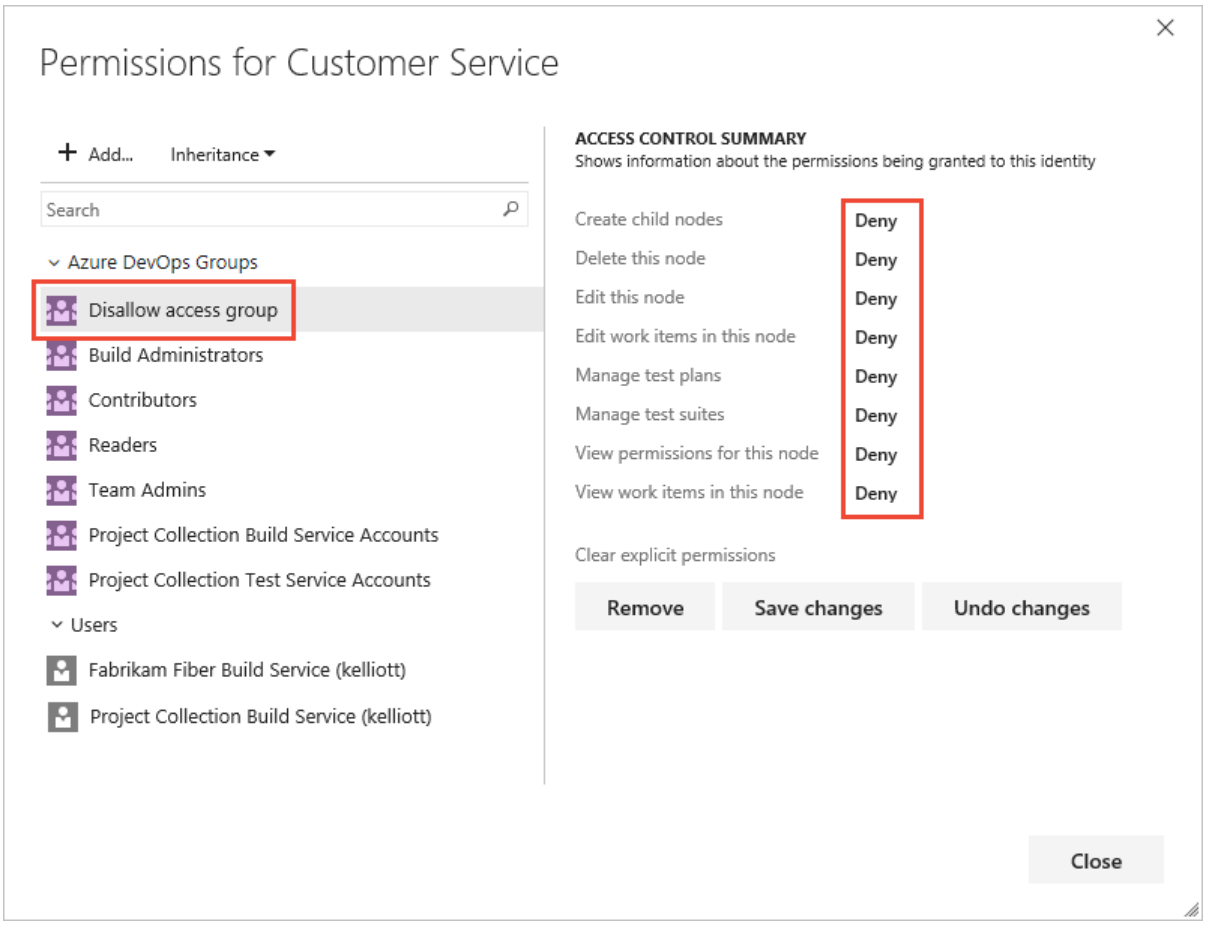


2. Choose the ... context menu for the node you want to manage and select **Security**.



3. Select the group or team member, and then change the permission settings. If you don't see the group you want, try adding it first.

   For example, here we've added the Disallow Access Group, and disallowed members of this group the ability to view, modify, or edit work items in the Customer Service area path.



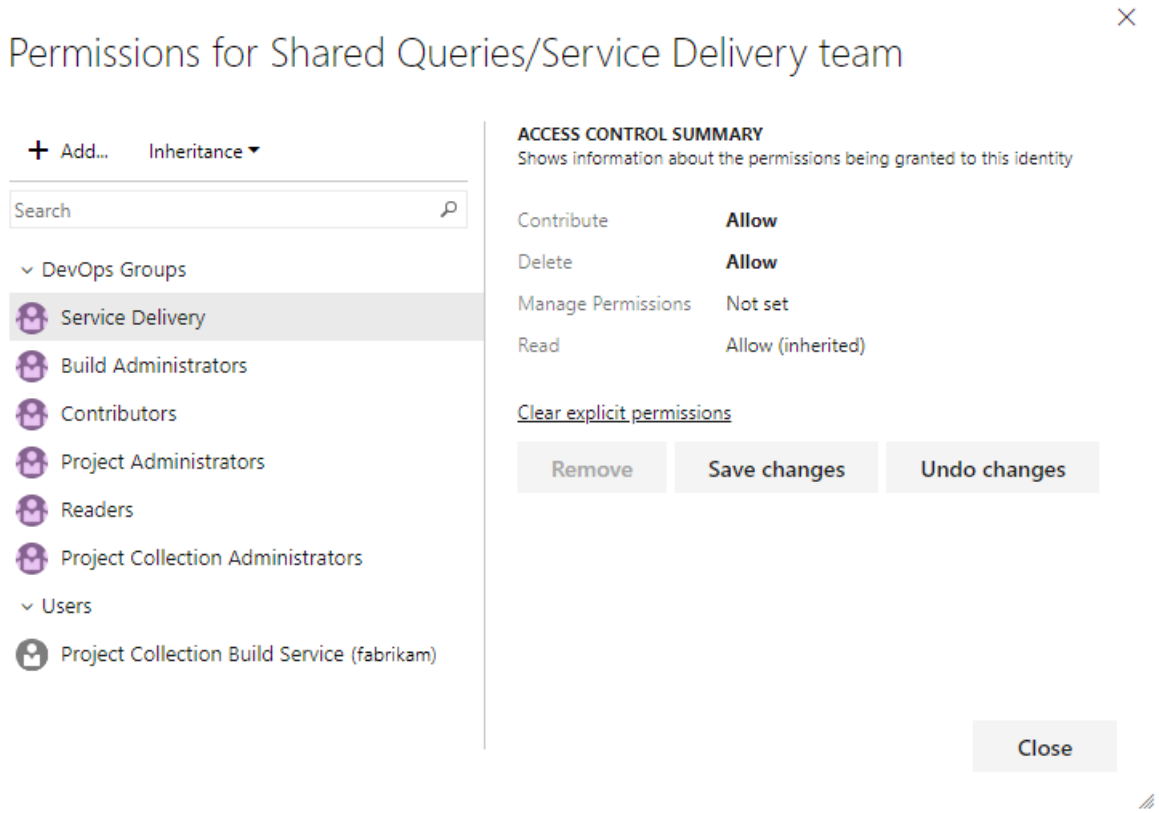
You can specify two explicit authorization states for permissions: **Deny** and **Allow**. In addition, permissions can exist in one of three additional states. To learn more, see About permissions and groups.

Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Define and edit queries or query folders

You can specify who can add or edit query folders or queries at the object-level. To manage permissions for a query or query folder, you must be the creator of the query or folder, a member of the Project Administrators or Project Collection Administrators group, or granted explicit access through the object's Security dialog.

Query folder Permissions dialog

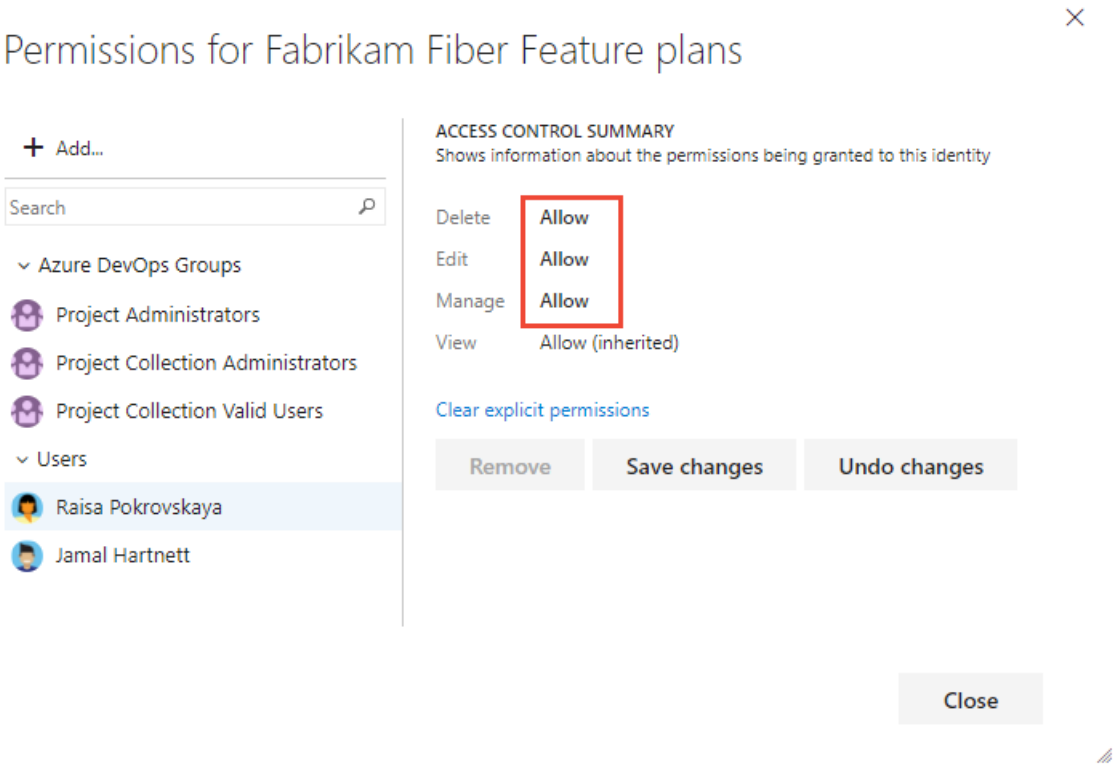


For details, see Set permissions on a shared query or query folder. To learn more about queries, see Create managed queries to list, update, or chart work items.

Edit or manage permissions for Delivery Plans

Delivery Plans are an object within a project. You manage plan permissions for each plan similar to the way you manage permissions for shared queries or query folders. The creator of a Delivery Plan as well as all members of the Project Collection Administrators and Project Administrators groups have permissions to edit, manage, and delete plans.

Delivery Plan Permissions dialog



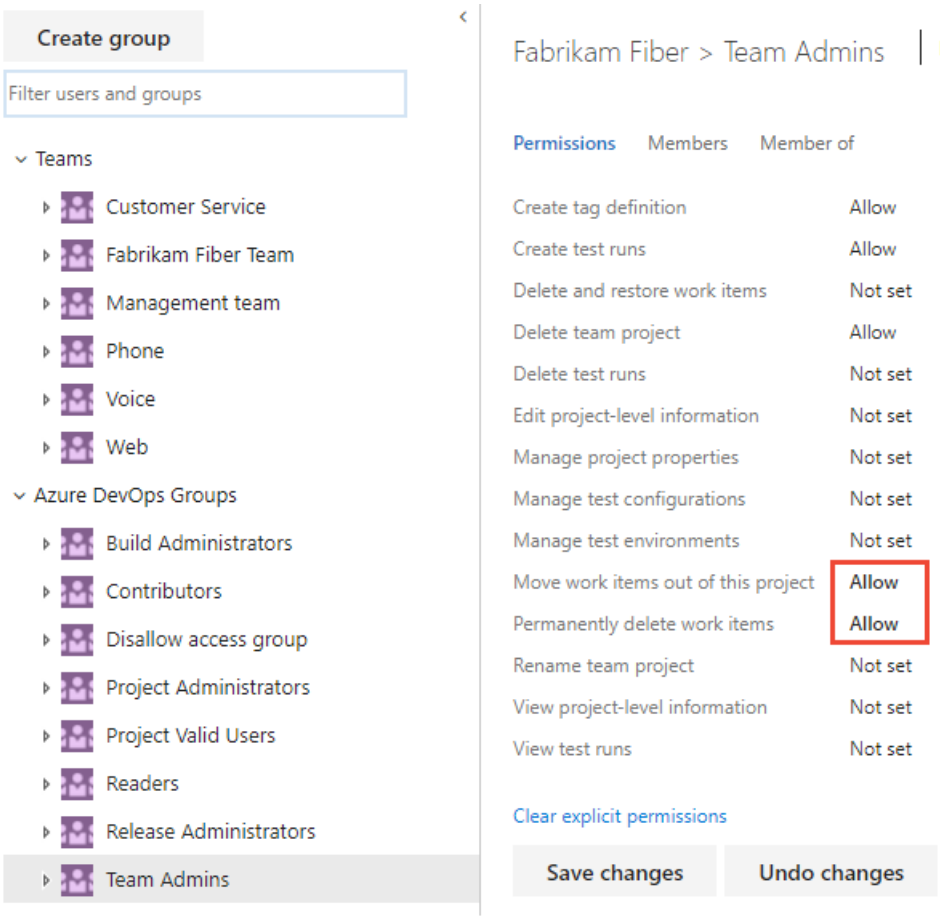
To learn more, see Edit or manage Delivery Plan permissions. To learn more about Delivery Plans, see Review team plans.

Move or permanently delete work items

By default, Project Administrators and Contributors can change the work item type and delete work items by moving them to the Recycle bin. Only Project Administrators can permanently delete work items and test artifacts. Project admins can grant permissions to other team members as needed.

For example, as a project admin you can grant a user, team group, or other group you've created to have these permissions. Open the Security page for the project and choose the user or group you want to grant permissions. (To learn how to access project-level **Security**, see Set permissions at the project-level or project collection-level.)

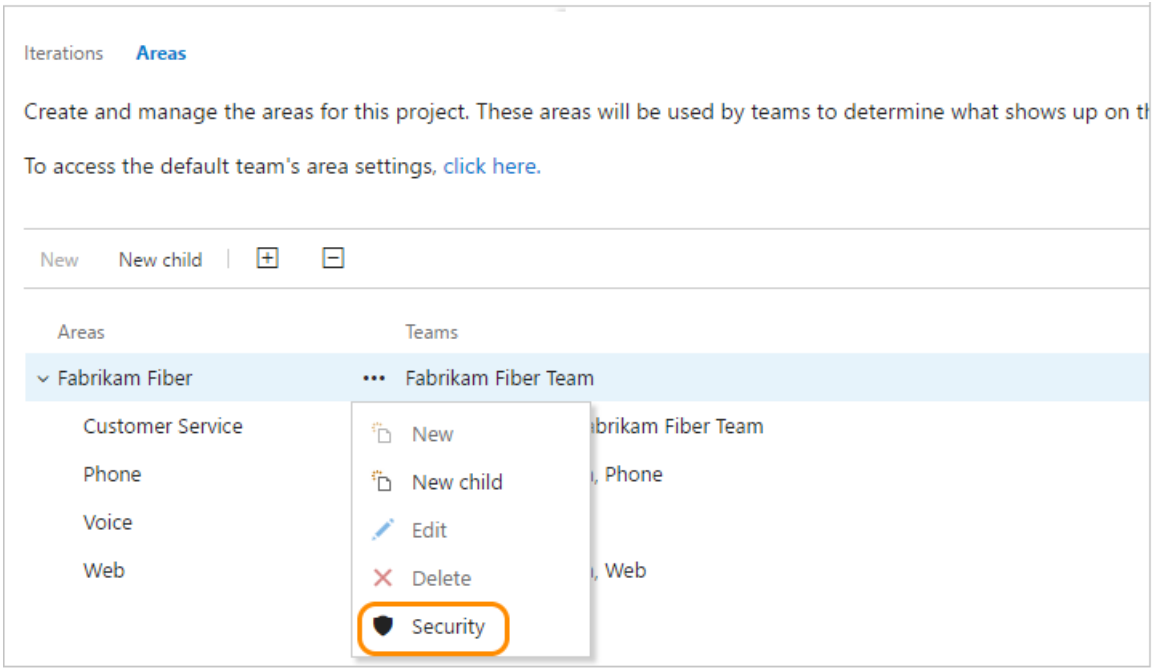
In this example, we grant members assigned to the team administrator role, who belong to the Team Admin groups, permissions to move work items to another project and to permanently delete work items.



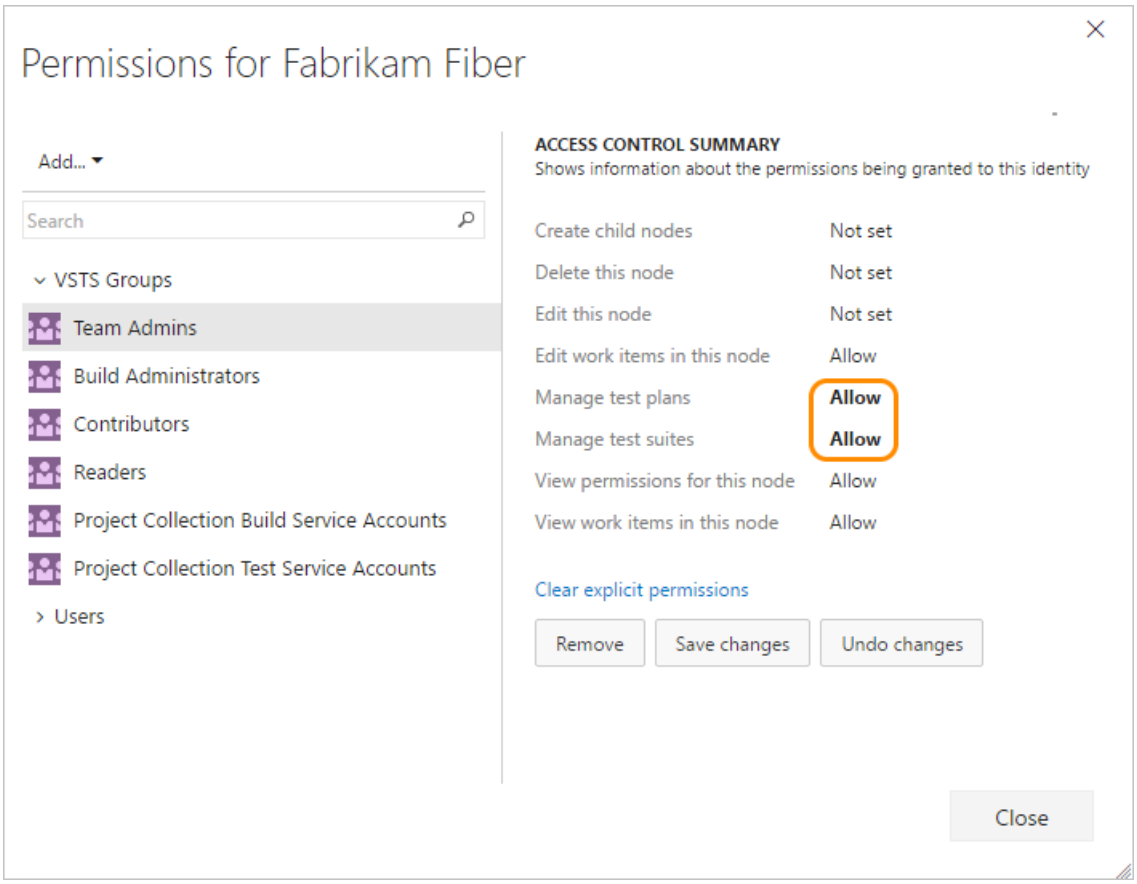
Manage test artifacts

In addition to the project-level permissions set in the previous section, team members need permissions to manage test artifacts which are set for an area path.

Open the **Security** page for area paths and choose the user or group you want to grant permissions.



Set the permissions for **Manage test plans** and **Manage test suites** to **Allow**.



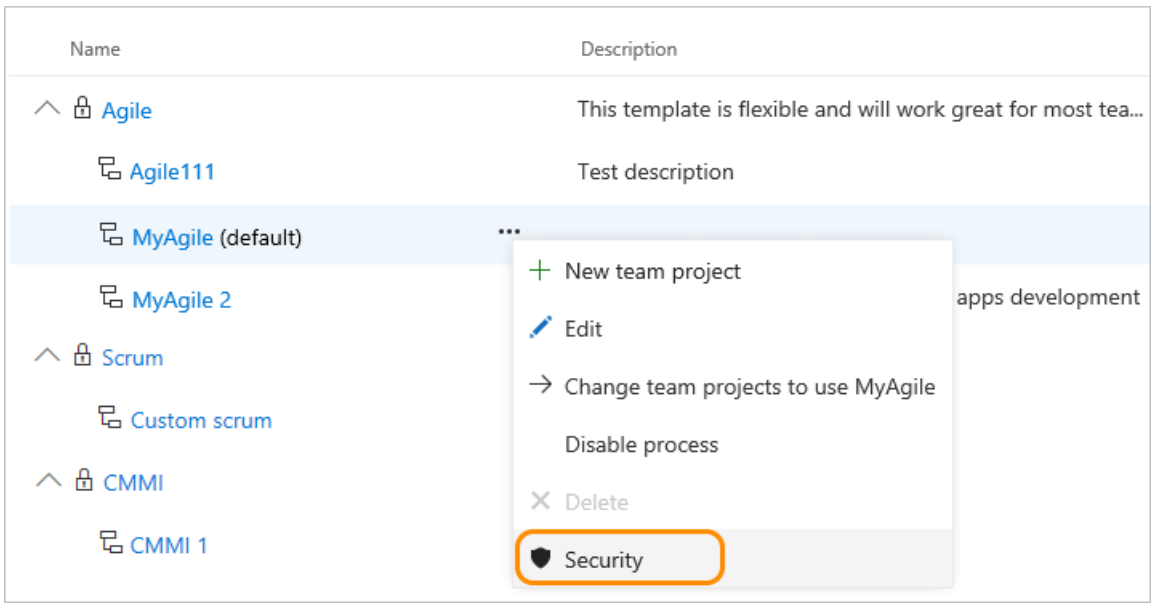
To have full access to the Test feature set, your access level must be set to Advanced. Users with Basic access and with permissions to permanently delete work items and manage test artifacts can only delete orphaned test cases.

Customize an inherited process

By default, only Project Collection Administrators can create and edit processes. However, these admins can grant permissions to other team members by explicitly setting the **Create process**, **Delete process**, or **Edit process** permissions at the collection level for a specific user.

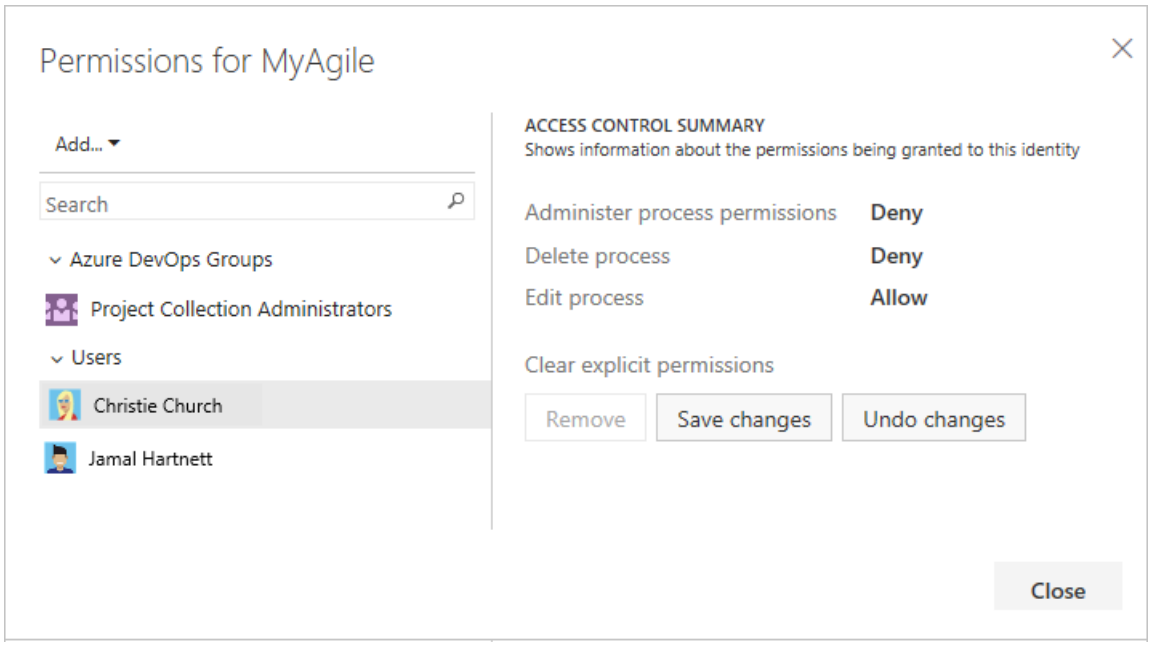
To customize a process, you need to grant **Edit process** permissions to a user account for the specific process.

1. Open the ... context menu for the inherited process and choose **Security**. To open this page, see Customize a project using an inherited process.



2. Add the account name of the person you want to grant permissions to, set the permissions to **Allow** that you want them to have, and then choose **Save changes**.

   Here we add Christie Church and allow her to edit the process.



NOTE

Each process is a securable unit and has individual access control lists (ACLs) that govern creating, editing, and deleting inherited processes. At the collection level, project collection administrators can choose which processes can be inherited from and by whom. When you create a new inherited process, the process creator as well as project collection administrators have full control of the process and can also set individual ACLs for other users and groups to edit and delete the process.

Additional options for restricting access to work items

NOTE

You can use one or more of the following options with the On-premises XML process models. To learn more about process models, see Customize work tracking experience.

You can restrict access to work tracking objects in one of two ways:

- By adding WITs to the Hidden Categories group, you can prevent the majority of project contributors from creating them. You can create a hyperlink to a template that opens the work item form and share that link with those team members who you do want to create them.
- Set a condition field rule, a condition-based field rule or a combination of the two that applies to a group. You can restrict changes from being made to a field by specifying a qualifying rule and making it apply for a specific group. Conditional rules can include **CANNOTLOSEVALUE**, **EMPTY**, **FROZEN**, **NOTSAMEAS**, **READONLY**, and **REQUIRED** elements.

For more information about how to customize WITs, see Modify or add a custom work item type (WIT).

Related articles

- Set permissions on queries and query folders
- Permissions and access for work tracking
- Permissions and groups reference

Switch project, repository, team

1/31/2019 • 6 minutes to read • Edit Online

Azure DevOps Services | Azure DevOps Server 2019 | TFS 2018 | TFS 2017

Several features depend on the project, repository, or team that you have selected. For example, dashboards, backlogs, and board views will change depending on the project and team you select.

Also, when you add a work item, the system references the default area and iteration paths defined for the team context. Work items you add from the team dashboard (new work item widget) and queries page are assigned the team default iteration. Work items you add from a team backlog or board, are assigned the team default backlog iteration. To learn more, see About teams and Agile tools.

View and open a project

From the **Projects** page you can quickly navigate to a project that you have permissions to view.

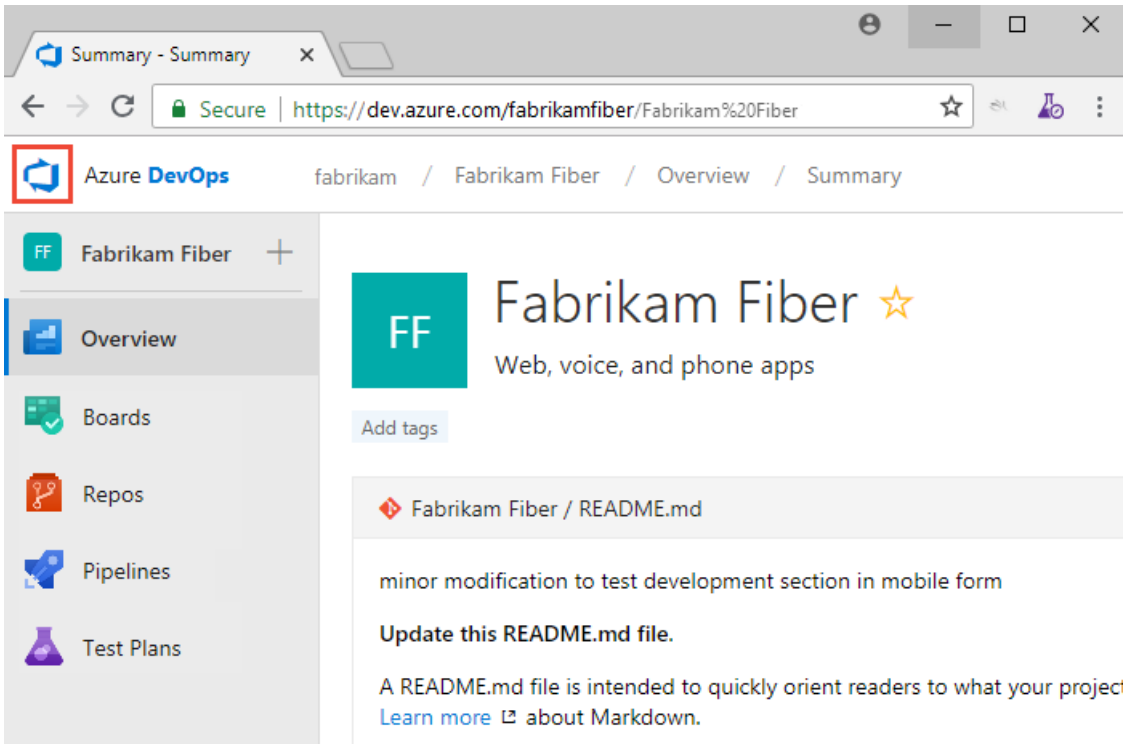
> **NOTE**
> Your web portal uses either the **New navigation** or **Previous navigation** user interface. Choose the **New navigation** tab if the **New Navigation** feature is enabled. You'll see a vertical sidebar along with other navigational features when **New Navigation** has been enabled for the signed-in user or the organization. Choose **Previous navigation** when you see a top-level, blue-bar—indicating that **New navigation** isn't enabled.

> **NOTE**
> Choose the **New navigation** tab for guidance. Azure DevOps Server 2019 supports the **New Navigation** user interface.

> **NOTE**
> Choose the **Previous navigation** tab for guidance. TFS 2018 and earlier versions only support the previous navigation user interface.

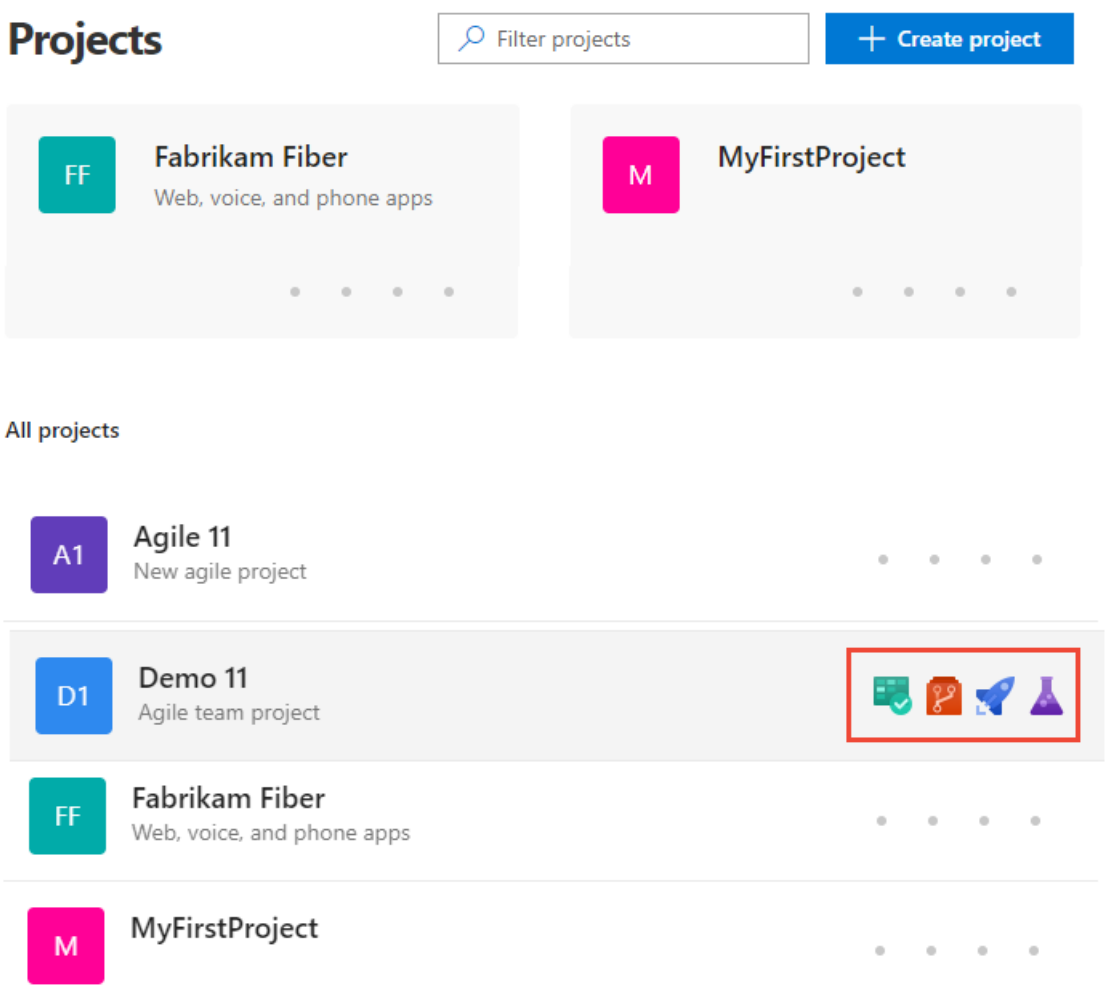
- New navigation
- Previous navigation

1. Choose the Azure DevOps logo to open **Projects**.

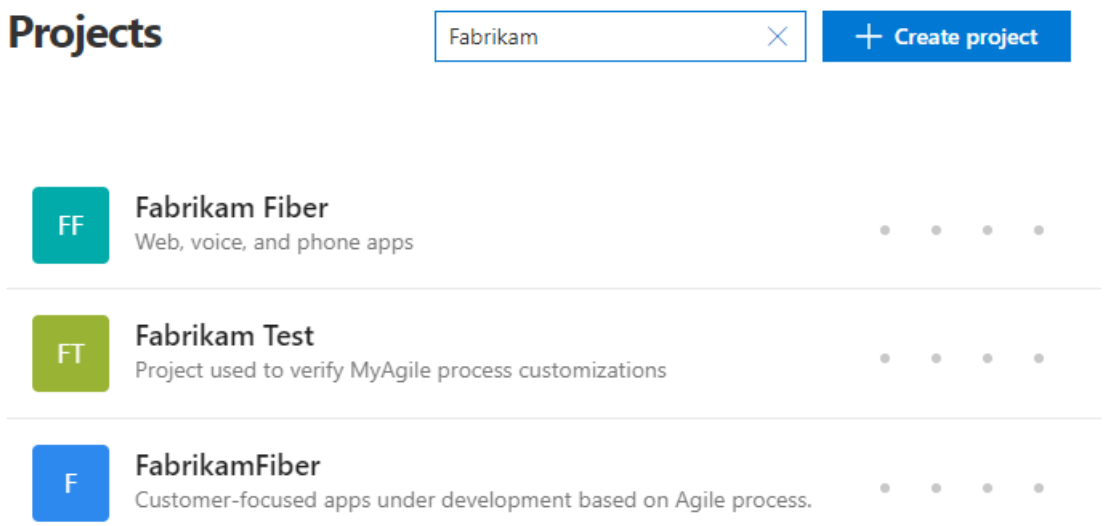


The projects you most recently viewed are displayed, followed by a list of all projects in alphabetic order.

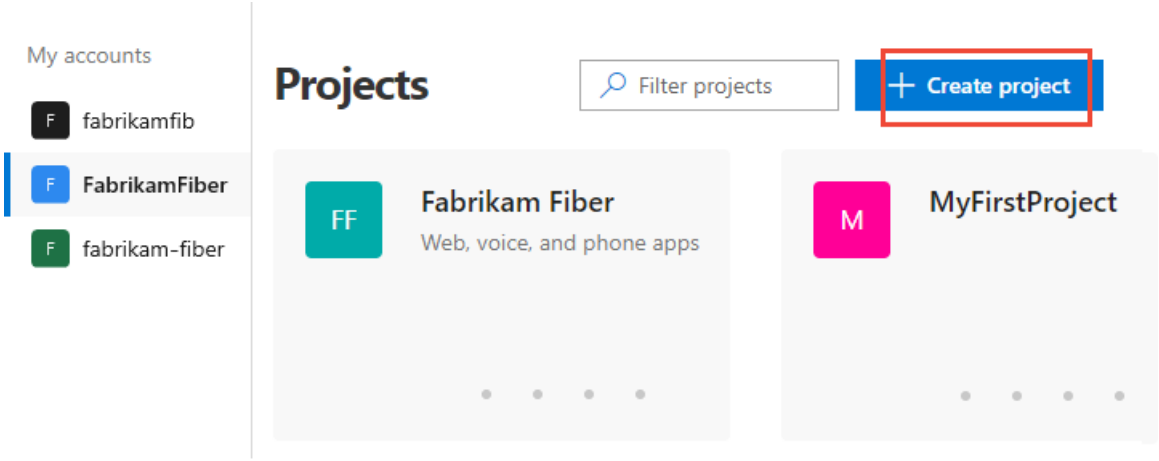
2. Hover over the dots and you can open the service of interest for that project.



3. You can filter the project and team list using the *Filter projects* search box. Simply type a keyword contained within the name of a project or team. Here we type **Fabrikam** to find all projects or teams with *Fabrikam* in their name.



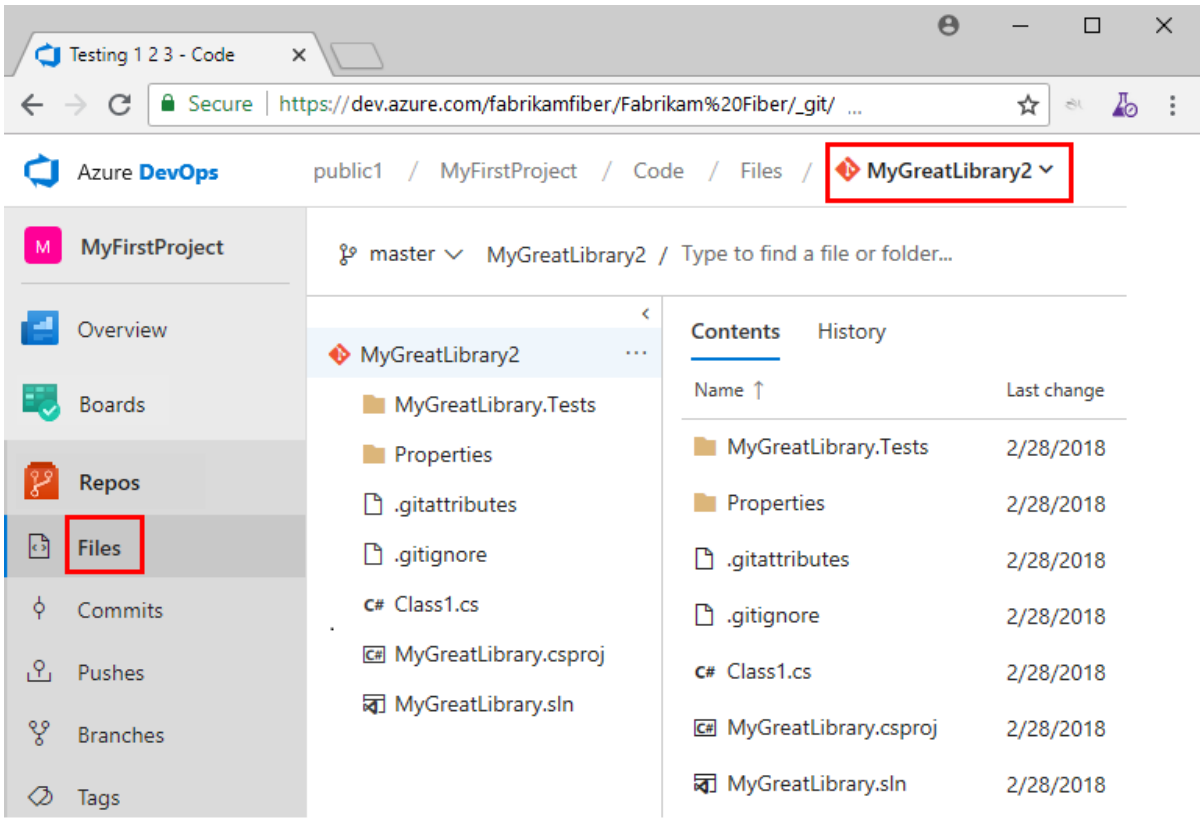
4. Choose **Create Project** to add a project. You must be an account administrator or a member of the Project Collection Administrators group to add a project.



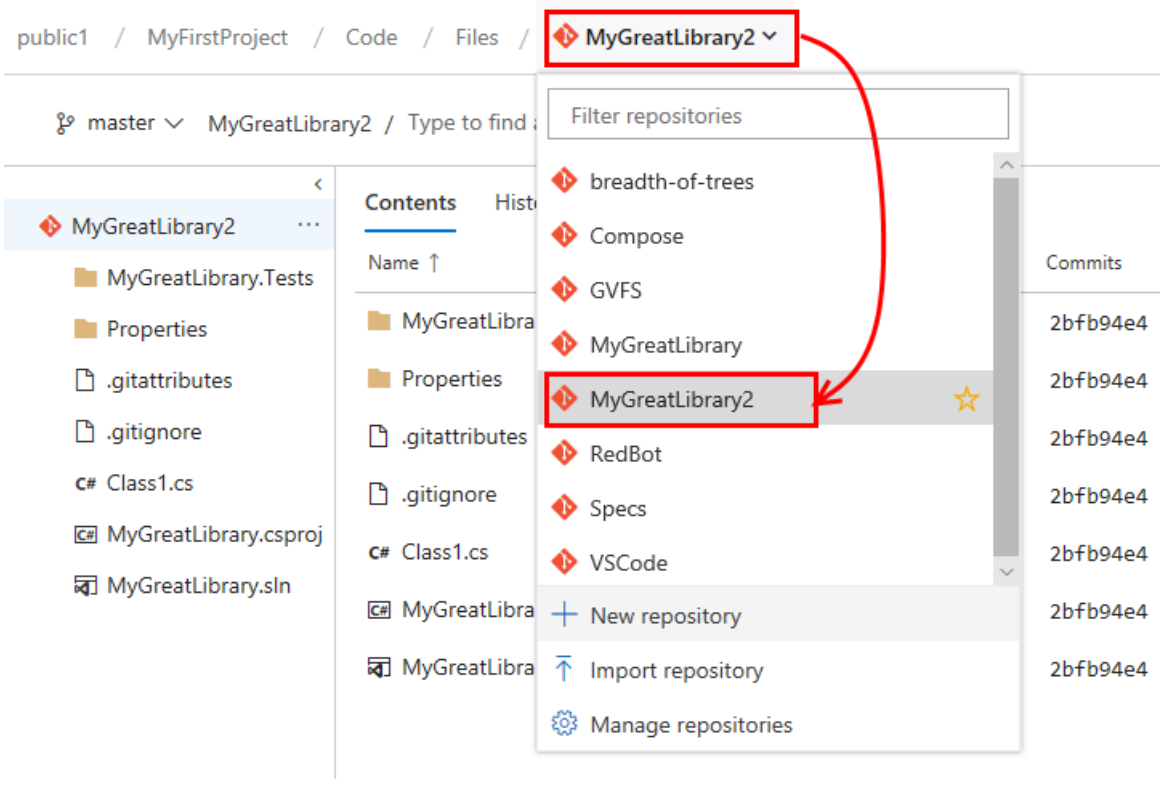
View and open a repository

- New navigation
- Previous navigation

1. Choose **Repos>Files**.



2. Select the repository of interest from the repository selector.



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

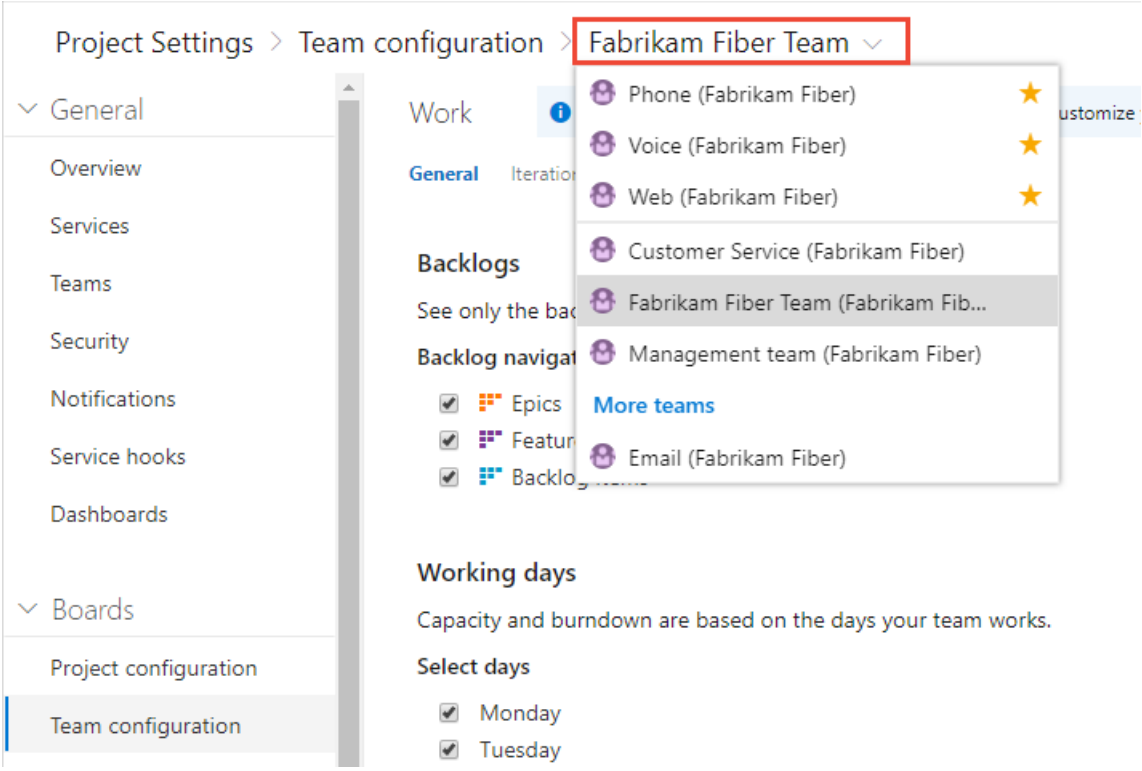
Switch to a different team

- New navigation
- Previous navigation

From a user page, one under—**Boards**, **Repos**, **Pipelines**, or **Test Plans**—you can't switch to a different team, you

can only select team artifacts.

From a **Project Settings>Work>Team configuration** page, you select a team from the team selector breadcrumb.



Choose the **Previous navigation** tab for guidance. **New navigation** isn't supported for TFS 2018 and earlier versions.

Related articles

- Work across projects
- Add teams

Permissions and access for work tracking

2/5/2019 • 10 minutes to read • Edit Online

Azure DevOps Services | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

As a member of an Azure DevOps project, you can use the majority of features to track work. Limitations to select features are based on the *access level* and *security group* to which a user is assigned. The **Basic** access level supports full access to all Azure Boards features. **Stakeholder** access level provides partial support to select features, allowing users to view and modify work items, but not use all features. The built-in security groups —**Readers**, **Contributors**, and **Project Administrators**— and team administrator role grant permissions to specific features.

As a member of an Azure DevOps project, you can use the majority of features to track work. Limitations to select features are based on the *access level* and *security group* to which a user is assigned. The **Basic** access level supports full access to all features under the **Work** hub. **Stakeholder** access level provides partial support to select features, allowing users to view and modify work items, but not use all features. The built-in security groups —**Readers**, **Contributors**, and **Project Administrators**— and team administrator role grant permissions to specific features.

In the tables provided in this article, a checkmark indicates that the corresponding access level or security group has access to a feature by default.

> **NOTE**
> Team administrators can configure settings for their team's tools. Organization owners and members of the Project Administrators group can configure settings for all teams. To be added as an administrator, see Add team administrators or Add administrators, set permissions at the project-level or project collection-level.

For a comparison chart of Stakeholder versus Basic access, see the Feature matrix. To assign or change an access level, see Add users and assign licenses. If you need to grant specific users select permissions, you can do so.

General work item feature access

You can use work items to track anything you need to track. To learn more, see Understand how work items are used to track issues, tasks, and epics.

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	TEAM ADMINS
View/open work items	✓	✓	✓	✓
Add work items, add tags to work items *(Stakeholders can assign existing tags to work items, but can't add new tags)*	✓		✓	✓
Change work item type	✓		✓	✓
Move work item to another project			✓	✓
Email work items	✓		✓	✓

Apply a work item template				
Delete work items (able to restore from the Recycle bin)				
Permanently delete work items				
Provide feedback (through the Microsoft Feedback client)				
Request feedback				

NOTE

You can change the work item type or move work items to another project within a project collection. These features require that the data warehouse is disabled. With the data warehouse disabled, you can use the Analytics Service to support your reporting needs. To learn more about disabling the data warehouse, see Disable the data warehouse and cube.

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	TEAM ADMINS
View/open work items				
Add work items, add tags to work items *(Stakeholders can assign existing tags to work items, but can't add new tags)*				
Email work items				
Apply a work item template				
Delete work items (able to restore from the Recycle bin)				
Permanently delete work items				
Provide feedback (through the Microsoft Feedback client)				
Request feedback				

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	TEAM ADMINS
View/open work items				
Add work items, add tags to work items *(Stakeholders can assign existing tags to work items, but can't add new tags)*				
Email work items				

Delete work items (able to restore from the Recycle bin)			☐	☐
Permanently delete work items				☐
Provide feedback (through the Microsoft Feedback client)	☐	☐	☐	☐
Request feedback			☐	☐

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	TEAM ADMINS
View/open work items	☐	☐	☐	☐
Add work items, add tags to work items *(Stakeholders can assign existing tags to work items, but can't add new tags)*	☐		☐	☐
Email work items	☐		☐	☐
Permanently delete work items				☐
Provide feedback (through the Microsoft Feedback client)	☐	☐	☐	☐
Request feedback			☐	☐

Boards feature access

You use **Boards** to implement Kanban methods. Boards present work items as cards and support quick status updates through drag-and-drop.

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	TEAM ADMINS
View boards and open work items	☐	☐	☐	☐
Add work items to a board; update status, reorder, or reparent child tasks through drag-and-drop; update a field on a card			☐	☐
Add child tasks to a checklist	☐		☐	☐
Assign to a sprint (from card menu)	☐		☐	☐
Customize a board, configure team settings *(Stakeholders assigned as a team administrator or Project Administrator can configure team settings)*	☐			☐

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	TEAM ADMINS
View boards and open work items	☐	☐	☐	☐

Add work items to a board; update status through drag-and-drop			☐	☐
Assign to a sprint	☐		☐	☐
Customize a board, configure team settings *(Stakeholders assigned as a team administrator or Project Administrator can configure team settings)*	☐			☐

Backlogs features access

Backlogs display work items as lists. A product backlog represents your project plan and a repository of all the information you need to track and share with your team. Portfolio backlogs allow you to group and organize your backlog into a hierarchy.

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	TEAM ADMINS
View backlogs and open work items	☐	☐	☐	☐
Add work items to a backlog *(Stakeholders can only add items to the bottom of the backlog)*	☐		☐	☐
Use bulk edit features	☐		☐	☐
Add child items to a backlog item; prioritize or reorder a backlog; parent items using the Mapping pane; Assign items to a sprint using the Planning pane			☐	☐
Customize a backlog, configure team settings *(Stakeholders assigned as a team administrator or Project Administrator can configure team settings)*	☐			☐

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	TEAM ADMINS
View backlogs and open work items	☐	☐	☐	☐
Add work items to a backlog *(Stakeholders can only add items to the bottom of the backlog)*	☐		☐	☐
Use bulk edit features	☐		☐	☐
Add child items to a backlog item; prioritize or reorder a backlog; parent items using the Mapping pane			☐	☐
Customize a backlog, configure team settings *(Stakeholders assigned as a team administrator or Project Administrator can configure team settings)*	☐			☐

Sprints feature access

You use sprint tools to implement Scrum methods. The **Sprints** set of tools provide filtered views of work items that a team has assigned to specific iteration paths or sprints.

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	TEAM ADMINS
View sprint backlogs, taskboards, and open work items	☐	☐	☐	☐
Add work items to a sprint backlog *(Stakeholders can add backlog items to the bottom of a sprint backlog)*	☐		☐	☐
Add work items to a taskboard *(Stakeholders can add backlog items but not tasks)*			☐	☐
Prioritize/reorder a sprint backlog or taskboard; add child items to a backlog item; reassign items to a sprint using the Planning pane			☐	☐
View team capacity (work details)	☐	☐	☐	☐
Set team capacity			☐	☐
Use bulk edit features	☐		☐	☐
Define sprints, set sprint dates				☐
Customize a sprint backlog or taskboard, configure team settings *(Stakeholders assigned as a team administrator or Project Administrator can configure team settings)*	☐			☐

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	TEAM ADMINS
View sprint backlogs, taskboards, and open work items	☐	☐	☐	☐
Add work items to a sprint backlog *(Stakeholders can add backlog items to the bottom of a sprint backlog)*	☐		☐	☐
Add work items to a taskboard *(Stakeholders can add backlog items but not tasks)*			☐	☐
Prioritize/reorder a sprint backlog or taskboard; add child items to a backlog item; reassign items to another using drag-and-drop			☐	☐
View team capacity (work details)	☐	☐	☐	☐

Set team capacity			☐	☐
Use bulk edit features	☐		☐	☐
Define sprints, set sprint dates				☐
Customize a sprint backlog or taskboard, configure team settings *(Stakeholders assigned as a team administrator or Project Administrator can configure team settings)*	☐			☐

Queries and semantic search

Queries are filtered lists of work items based on criteria that you define by using a query editor. Adhoc searches are powered by a semantic search engine.

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	PROJECT ADMINS
View and run managed queries	☐	☐	☐	☐
Create and save managed My queries	☐		☐	☐
Create and save managed Shared queries *(Stakeholders can't save Shared queries even if granted permissions)*				☐
View query charts		☐	☐	☐
Create query charts			☐	☐
Powerful semantic work-tracking search	☐	☐	☐	☐

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	TEAM ADMINS
View and run managed queries	☐	☐	☐	☐
Create and save managed queries *(Stakeholders can't save shared queries)*	☐		☐	☐
View query charts		☐	☐	☐
Create query charts			☐	☐

Delivery plans feature access

Delivery plans display work items as cards against a calendar view. This format can be an effective communication tool with managers, partners, and stakeholders for a team. Users granted **Stakeholder** access for private projects have no access to delivery plans, while users granted **Stakeholder** access for public projects has the same access as regular Contributors granted **Basic** access.

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	PROJECT ADMINS
View delivery plans		☐	☐	☐
Create, edit, or delete a delivery plan *(Contributors can only edit or delete plans that they create)*			☐	☐
Manage permissions for a delivery plan *(Contributors can only manage permissions for plans that they create)*				☐

Test management feature access

Test plans, test suites, test cases and other test artifacts are specific work item types that support manual and exploratory testing. You set test permissions at the project level from the admin context Security page.

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	PROJECT ADMINS
Provide feedback using the Test & Feedback extension	✓	✓	✓	✓
Exploratory testing, view test runs		✓	✓	✓
Manage test plans and test suites Manage test configurations and test environments Exploratory testing, create and delete test runs Request feedback using the Test & Feedback extension			✓	✓
Test Manager (purchased separately)			✓	✓

Area permissions for web-based test case management and test execution control access to the following actions.

The **Manage test suites** permission enables users to:

- Create and modify test suites
- Add or remove test cases to/from test suites
- Change test configurations associated with test suites
- Modify the suite hierarchy by moving a test suite

The **Manage test plans** permission enables users to:

- Create and modify test plans
- Add or remove test suites to or from test plans
- Change test plan properties such as build and test settings

Resources defined for the project

You set project-level information permissions from **Project Settings**>**Security**. You set permissions for area and iteration paths under **Project Settings**>**Boards**. These resources are defined for a project which all valid users of the project can view.

TASK	STAKEHOLDERS	READERS	CONTRIBUTORS	TEAM ADMINS	ACCOUNT OWNER/ PROJECT ADMINS
View project-level information	✓	✓	✓	✓	✓
Area node: Edit work items under the node			✓	✓	✓
Area nodes and Iteration nodes: Create, delete, edit child nodes					✓
Edit project-level information				✓	

The **Edit project-level information** permission includes the ability to perform these tasks for the project:

- Create and modify areas and iterations
- Edit check-in policies
- Edit shared work item queries
- Edit project level permission ACLs
- Create and modify global lists
- Edit event subscriptions (email or SOAP) on project level events.

Team administrator role and permissions

The following table summarizes a subset of the default permissions assigned to the project Readers, Contributors and Project Administrators groups and the Team Administrator role. Team admin permissions extend only to the team for which they're an administrator. Project administrator permissions extend across all teams defined for the project.

PERMISSION	READERS	CONTRIBUTORS	TEAM ADMINISTRATORS	PROJECT ADMINISTRATORS
Add a team administrator			✓	✓
Add team members			✓	✓
View shared work item queries	✓	✓	✓	✓
Manage shared query and query folder permissions (Contribute, Delete, Manage Permissions)				✓
Add and edit dashboards			✓	✓

Stakeholder access

Stakeholder access supports business owners and analysts and other team members who don't contribute to code, build, and test activities. They contribute by adding ideas to the backlog, adding context and information to work items, and reviewing status and progress. All members of an organization who don't use Visual Studio but want to contribute to work item tracking and monitor progress can be assigned as a stakeholder. To learn more about

stakeholder access, see Work as a stakeholder.

For a comparison chart of stakeholder versus basic access, see the Feature Matrix.

For information about each access levels, see About access levels. To assign access levels, see:

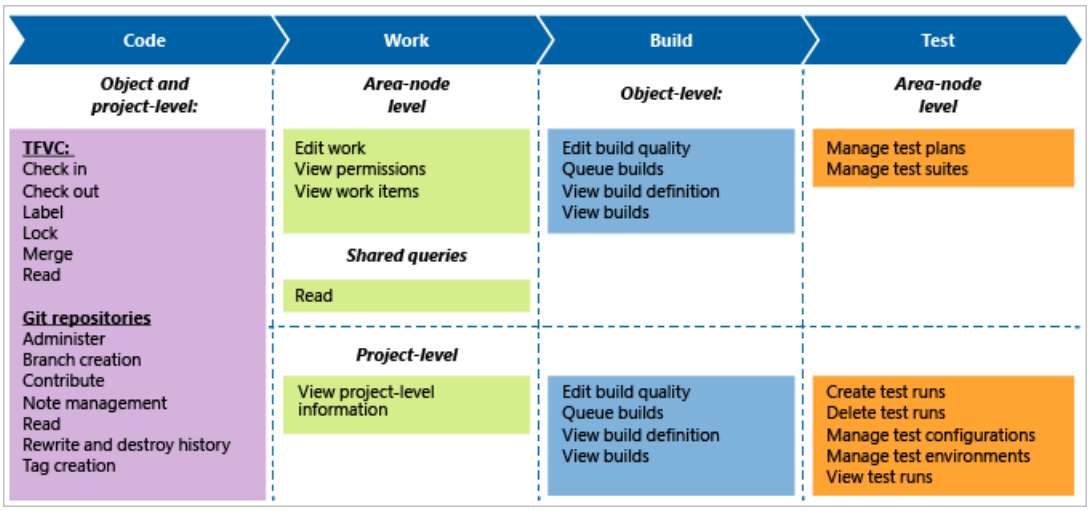
- **Azure DevOps Services**: Add users and assign licenses in Azure DevOps
- **Azure DevOps Server, TFS**: Change access levels

Grant team members additional permissions

For teams to work autonomously, you may want to provide them with permissions that they don't have by default. Suggested tasks include providing team administrators or team leads permissions to:

- Create and edit child nodes under their default area path
- Create and edit child nodes under an existing iteration node
- Create shared queries and folders under the Shared Queries folder.

By default, team members inherit the permissions afforded to members of the project Contributors group. Members of this group can add and modify source code, create and delete test runs, and create and modify work items. They can collaborate on a Git project or collaborate with other team members and check in work to the team's code base (TFVC).



If your on-premises deployment includes reporting, add users to those resources. See Grant permissions to view or create SQL Server reports in TFS.

::: moniker range="<= tfs-2017"

If your on-premises TFS deployment includes reporting or SharePoint Products, add users to those resources. See Grant permissions to view or create SQL Server reports in TFS and Set SharePoint site permissions.

Related notes

- Set permissions and access for work tracking
- Get started as a Stakeholder
- Add another team
- Manage teams and configure team tools

Work item field index

2/7/2019 • 3 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Use this index to look up a description of each field used to track work items. This reference includes all fields defined within the core system processes/process templates: Basic, Agile, Scrum, and CMMI. The fields and work item types (WITs) available to you depend on the process you chose when you created your project.

To support additional tracking needs, you can define your own custom work item fields.

To support additional tracking needs, you can modify or add a custom field.

Alphabetical index

Values in parenthesis indicate the following:

- **System**: Core system field assigned to all work item types for all processes
- **Agile**: Used only by the Agile process
- **CMMI**: Used only by the CMMI process
- **Scrum**: Used only by the Scrum process
- **TCM**: Used to support Test case management

A

- Acceptance Criteria (Scrum)
- Accepted By
- Accepted Date
- Activated By
- Activated Date
- Activity
- Actual Attendee 1-8 (CMMI)
- Analysis (CMMI)
- Application Launch Instructions
- Application Start Information
- Application Type
- Area ID (System)
- Area Path (System)
- Assigned To
- Associated Context
- Associated Context Code
- Associated Context Owner
- Associated Context Type
- Attached File Count
- Authorized As (Not used)
- Automated Test Id (TCM)
- Automated Test Name (TCM)
- Automated Test Storage (TCM)
- Automated Test Type (TCM)
- AutomatedTestId (TCM)
- AutomatedTestName (TCM)
- Automation Status (TCM)

B

- Backlog Priority (Scrum)
- Blocked
- Board Column
- Board Column Done
- Board Lane
- Business Value

C

- Called By (CMMI)
- Called Date (CMMI)
- Changed By (System)
- Changed Date (System)
- Closed By (System)
- Closed Date (System)
- Closed Status
- Closed Status Code
- Closing Comment
- Comment Count
- Comments (CMMI)
- Committed (CMMI)
- Completed Work
- Contingency Plan (CMMI)
- Corrective Action Actual Resolution (CMMI)
- Corrective Action Plan (CMMI)
- Created By (System)
- Created Date (System)

D-E-F

- Discipline (CMMI)
- Description (System)
- Due Date
- Effort
- Escalate (CMMI)
- External Link Count
- Finish Date
- Found In Build (TCM)
- Found In Environment (CMMI)

H

- History (System)
- How Found (CMMI)
- Hyperlink Count

I

- ID (System)
- Impact Assessment (CMMI)
- Impact on Architecture (CMMI)
- Impact on Development (CMMI)
- Impact on Technical Publications (CMMI)
- Impact on Test (CMMI)
- Impact on User Experience (CMMI)
- Integrated in Build (TCM)
- Issue (TCM)
- Iteration Id (System)
- Iteration Path (System)

J-L-M-N

- Justification (CMMI)
- Link Comment (System)
- Link Description (System)
- Local Data Source (TCM)
- Meeting Type (CMMI)
- Minutes (CMMI)
- Mitigation Plan (CMMI)
- Mitigation Triggers (CMMI)
- Node Name (System)

O-P-Q

- Optional Attendee 1-8 (CMMI)
- Original Estimate
- Parameters (TCM)
- Priority
- Probability (CMMI)
- Proposed Fix (CMMI)
- Purpose (CMMI)
- Query Text (TCM)

R

- Rating
- Reason (System)
- Related Link Count (System)
- Remaining Work
- Remote Link Count (System)
- Repro Steps
- Required Attendee 1-8 (CMMI)
- Requirement Type (CMMI)
- Requires Review (CMMI)
- Requires Test (CMMI)
- Resolution] (Scrum)
- Resolved By
- Resolved Date
- Resolved Reason
- Reviewed By
- Reviewed Date
- Rev (System)
- Risk (Agile)
- Root Cause (CMMI)

S

- Severity
- Size (CMMI)
- Stack Rank
- Start Date
- State (System)
- State Change Date
- State Code
- Steps (TCM)
- Steps to Reproduce (TCM)
- Story Points (Agile)
- Subject Matter Expert (CMMI)
- Symptom (CMMI)
- System Info (TCM)

T

- Tags
- Target Date
- Target Resolve Date (CMMI)
- Task Type (CMMI)
- Team Project (System)
- Test Suite Audit (TCM)
- Test Suite Type (TCM)
- Test Suite Type ID (TCM)
- Time Criticality
- Title (System)
- Triage (CMMI)

U-V-W

- User Acceptance Test (CMMI)
- Value Area
- Watermark (System)
- Work Item Type (System)

By using the system fields or other fields you have added to your project collection, you can enable meaningful cross-project reports and queries. In addition, any non-system field that is referenced in the workflow or forms section of the work item type definition must have a **FIELD** element that defines it in the **FIELDS** section of the work item type definition XML file. Also, you must specify any non-system field that you might want to use to generate a query or report in the **FIELDS** section.

Field reference topics

The following articles describe fields that are used in common by several WITs, or those that are functionally specific to just one or a few WITs.

Fields common to many work types

- Titles, IDs, and descriptive fields
- History and revision changes
- Areas and iterations
- Assignments and account-specific fields
- Planning, ranking, and priorities
- Work estimates, activity, and other numeric fields
- Build and test integration fields
- Links and attachment related fields

Fields used by specific work item types

- Code Review Request
- Code Review Response
- Feedback Request
- Feedback Response
- Shared Steps
- Test Case

Fields used to track CMMI work items

- Requirements
- Bugs
- Change Requests
- Issues
- Review Meetings
- Risks

Related articles

- About work item fields
- Create managed queries
- Define a query
- Choose a process
- Reportable fields reference (on-premises TFS only)

Backlog keyboard shortcuts

1/25/2019 • 2 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015

> **NOTE**
> Requires TFS 2015.2 or later version.

You can use the following keyboard shortcuts when working from a **Boards>Backlogs** page. These shortcuts work when you are on a product backlog, portfolio backlog, or sprint backlog page.

Backlogs

Ctrl+Home	Move item to top
m,b	Move item to backlog
m,i	Move item to current iteration
m,n	Move item to next iteration
Ins	Add child
Ctrl+Shift+f	Filter results

You can use the following keyboard shortcuts when working from a **Work>Backlogs** page. These shortcuts work when you are on a product backlog, portfolio backlog, or sprint backlog page.

Backlogs

Ctrl+Home	Move item to top
m,b	Move item to backlog
m,i	Move item to current iteration
m,n	Move item to next iteration
n	Open new item panel
Ins	Add child
Ctrl+Shift+f	Filter results
r	Show/Hide Parents

Related articles

- Keyboard shortcuts for the web portal and Team Explorer

Work items

1/31/2019 • 2 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Track the features and requirements you're developing, code defects or bugs, and other particulars using work items.

5-Minute Quickstarts

- View and add work items
- Add work items
- Drive Git development

- Add work items
- Drive Git development

- Add work items

Step-by-Step Tutorials

- Follow work
- Manage bugs
- Manage issues
- Move, change, or delete items
- Link work items
- Bulk modify (web)

- Manage bugs
- Manage issues
- Remove or delete items
- Link work items
- Bulk modify (web)

Concepts

- Choose a process
- Agile process guidance
- CMMI process guidance
- Scrum process guidance
- Agile glossary

How-to Guides

- Use @mentions to further discussion
- Use #ID to link to work items
- Add tags to work items
- Use work item templates

- Add tags to work items
- Use work item templates

Reference

- Permissions and access for work tracking
- Work item form controls
- Keyboard shortcuts for work item forms & the Work Items page
- Work item field index

- Permissions and access for work tracking
- Work item field index

Resources

- Backlogs
- Kanban
- Scrum
- Queries
- Customization

Backlogs

1/25/2019 • 2 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Start planning your project by quickly adding user stories or requirements to your product backlog. Once you have your plan in place, you can start driving your code development efforts.

Start planning your project by quickly adding user stories or requirements to your product backlog.

If your a project administrator just getting started, review the Configure settings and manage your Azure Boards project to learn more about defining area and iteration paths and customizing your work item types. If you want to add another product backlog, you do that by adding a team. For details, see About teams and Agile tools.

5-Minute Quickstarts

- Create your backlog
- Drive Git development
- Define area paths
- Define iteration paths

5-Minute Quickstarts

- Create your backlog
- Define area paths
- Define iteration paths

Step-by-Step Tutorials

- Define features & epics
- Organize backlogs
- Bulk modify work items

Concepts

- About teams and Agile tools
- Refine your backlog
- About permissions and access
- Share information in work items and social tools

How-to Guides

- Filter backlogs & queries
- Change column options
- Email/print work items

Reference

- Permissions and access for work tracking

- Work item field index
- Backlog keyboard shortcuts

Resources

- Work Items
- Boards (Kanban)
- Sprints (Scrum)
- Queries
- Work item customization
- What is Agile?
- What is Agile development?
- Agile culture

Boards (Kanban)

2/13/2019 • 2 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

Collaborate with others by adding, updating, and reviewing your work items as cards on a Kanban board.

If you're a project administrator just getting started, review the Configure settings and manage your Azure Boards project to learn more about defining area and iteration paths and customizing your work item types. If you want to add another Kanban board, you do that by adding a team. For details, see About teams and Agile tools.

5-Minute Quickstarts

- Kanban board quickstart

Step-by-Step Tutorials

- Kanban board basics
- Task checklists
- Epics & features
- Add inline tests
- Cumulative flow
- Enable live updates

- Kanban basics
- Task checklists
- Epics & features
- Cumulative flow

- Kanban basics
- Features
- Cumulative flow

Concepts

- Kanban best practices
- Kanban key concepts
- About teams and Agile tools

How-to Guides

- Add columns
- Customize cards
- Set WIP limits
- Split columns
- Expedite work (swimlanes)
- Definition of done

- Add columns

- Customize cards
- Set WIP limits

Reference

- Kanban board controls
- Kanban board keyboard shortcuts
- Work item field index
- Permissions for work tracking

- Work item field index
- Permissions for work tracking

Resources

- Backlogs
- Sprints (Scrum)
- Queries
- Work item customization
- What is Agile?
- What is Agile development?

Queries

2/7/2019 • 2 minutes to read • Edit Online

Azure Boards | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

List bugs, user stories, or other work items based on field criteria you specify. Then, you can review with your team, triage, or perform bulk updates.

If you're just getting started, read View, run, or email a work item query. For a quick reference to query editor tasks and sample queries, see Query quick reference.

5-Minute Quickstarts

- View, run, or email a query
- Perform an ad hoc search (search box query)

Step-by-Step Tutorials

- Create or edit a managed query
- Triage work items
- Bulk modify work items

Samples

- Query by title, ID, or description
- Query by assignment or workflow changes
- Query by area or iteration path
- Query by date or current iteration
- Query history
- Query a numeric field
- Query by picklist value
- Query by build & test integration fields
- Query by links or attachments

How-to Guides

- Configure work item query-based charts
- Organize queries, add a query folder
- Change column options
- Email/print work items

Reference

- Query quick reference
- Query fields, operators & macros
- Query keyboard shortcuts
- Work item field index
- WIQL syntax

- Permissions and access for work tracking

Resources

- Backlogs
- Kanban
- Scrum
- Work item customization
- Wiql Editor (Marketplace extension)
- Enhanced Export (Marketplace extension)

Customization

1/31/2019 • 2 minutes to read • Edit Online

Azure DevOps Services | Azure DevOps Server 2019 | TFS 2018 | TFS 2017 | TFS 2015 | TFS 2013

You customize your work tracking experience to support your business and reporting needs. The most common customizations include adding a custom field, modifying a work item form, or adding a custom work item type.

Most customers use the Inheritance process model, which provides a convenient user interface to support customization of the work tracking experience.

A select few customers use the Hosted XML process model, which requires that they have opted into this method. This model relies on updating XML files and then importing the process template of these files. To learn more, see Customize your work tracking experience.

With Azure DevOps Server 2019, you have a choice of using the Inheritance process model or the On-premises XML process model to support customizations. The choice is made when you create a project collection and choose the process model for the projects that you'll create in the collection. For details, see On-premises XML process model.

Team Foundation Server uses the On-premises XML process model to support customizations. This model relies on updating and importing XML files using the **witadmin** command line tool. For details, see On-premises XML process model.

5-Minute Quickstarts

- Define area paths
- Define iteration paths or sprints
- Add a custom field
- Add a custom work item type

5-Minute Quickstarts

- Define area paths
- Define iteration paths or sprints

Tutorials

- Customize a project
- Create and manage a process

Concepts

- About areas and iterations
- Differences between process models
- Workflow states & state categories
- Inheritance process model
- Hosted XML process model
- On-premises XML process model

How-to Guides

Use the guidance provided in the following topics based on the process model or process template that you want to customize.

- **Inheritance process model**
  - Customize a project
  - Create and manage a process
- **Hosted XML process model**
  - Supported upgrade operations
  - Clone a Hosted XML process to Inheritance
  - Change a project from Hosted XML to Inheritance
  - Customize a Hosted XML process
  - Import a process
- **On-premises XML process model**
  - Add or modify a field
  - Add or modify a work item type
- **Process templates**
  - Upload or download a process template
  - Customize a process template

Reference

- Index to XML element reference
- All WITD XML elements reference
- All FIELD XML elements reference
- All WORKFLOW XML elements reference
- WebLayout and Control elements
- Process configuration XML element reference

Resources

- Azure Boards
- Scale & configure teams
- Marketplace extensions
- Extensibility and REST APIs