Structure.Gantt Documentation

Structure.Gantt 2.0 Documentation

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Welcome to Structure.Gantt documentation.

1 Quick Start Guide

Structure.Gantt is a Structure extension, which brings planning and resource management features to structures. It adds the power of familiar Gantt charts to Jira, so you can instantly visualize issue dependencies and timelines, and understand resource allocations on a global scale.

1.1 Getting Started

1.1.1 Creating Your First Gantt Chart

The first step to using Structure.Gantt is to create your own Gantt charts. You can use one of our Gantt Chart templates or add a chart to an existing structure. See Creating Your First Gantt Chart(see page 12) for a step-by-step guide to each method.

Select Template

Empty Structure
Create an empty structure and add content manually.

Backlog Structure
Review issues scheduled for the coming release and see the workload distribution between the team members.

Agile Structure
Track and manage epics and stories from one or more Agile boards.

Gantt chart
Visualize issues and dependencies on a timeline. Manage resource allocation and determine completion dates.

Agile Gantt Chart
Visualize and plan your Epics and Stories on the time line based on their Sprint dates.

Next   Cancel

1.1.2 Gantt Chart Configuration

The Gantt Chart configuration(see page 86) defines how the chart is built, including where the chart's information comes from and what fields are used to build it.

Structure.Gantt comes with a predefined "Default" configuration, with several predefined parameters. You can begin with the default configuration and customize it as necessary, or you can create your own custom configurations. See Gantt Configuration in Details(see page 86) for more details.

1.2 Gantt Chart Elements
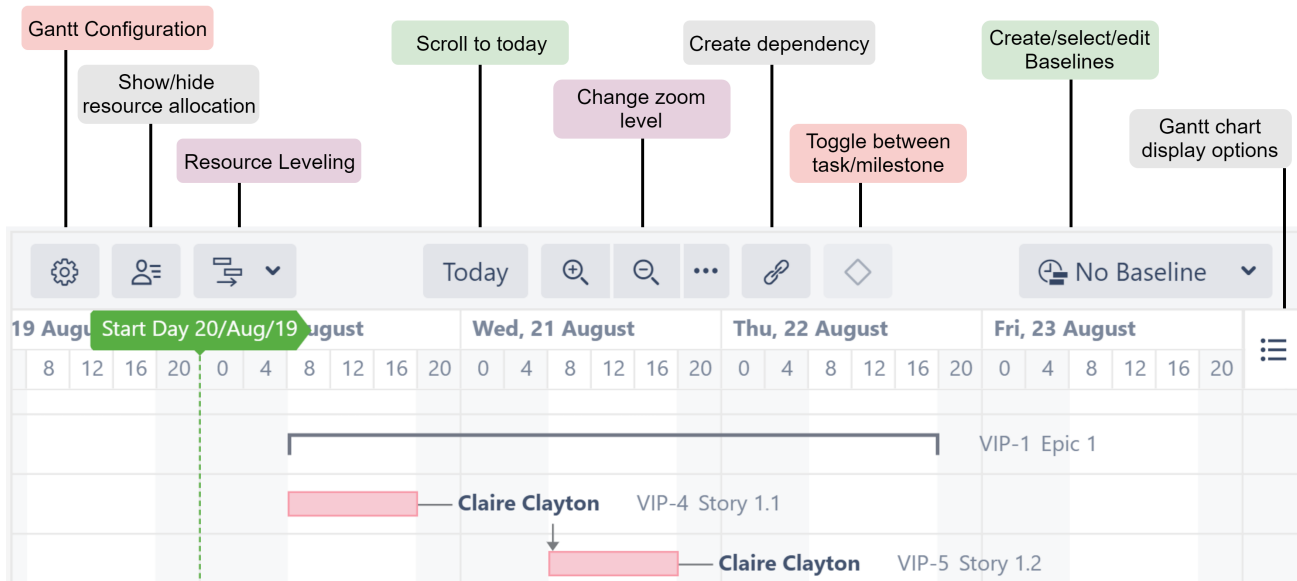
Your Gantt chart is composed of the following elements:

- **Time Scale** - Allows you to quickly navigate or focus your timeline to view a specific time frame. See Gantt Chart Elements | Time Scale(see page 44) for more details.
- **Start Date** - The project start date is indicated by a green vertical dashed line. Mouse over the point at the top to see the exact date.
- **Current Date** - The current date/time is indicated by an orange vertical line. Mouse over the point at the top to see the exact date.
- **Task Bars** - Structure items are represented in the chart with bars. Clicking the task bar will show the Task Details panel(see page 50), which contains information about the task's timeline and resources. See Gantt Chart Elements | Task Bars(see page 47) for more details.
- **Groups** - If an element has children in a structure, it can be shown as a Group (solid black line that extends from the earliest Start Date to the latest Finish Date of its child tasks). See Gantt Chart Elements | Groups(see page 47) for more details.
- **Dependencies** - Dependencies are displayed as arrows between task bars. Clicking the arrow will display the Dependency Properties. See Dependencies(see page 94) for more information.
- **Critical Path** - Tasks included in the critical path are highlighted in red.
- **Conflicts** - Scheduling conflicts are indicated by a dark red line placed on top of the task bar. To review and resolve the conflict, open the Task Details panel(see page 50). See Scheduling Conflict(see page 41) for more information.
- **Display Options** - The Display Options menu allows you to select what elements should be shown in the chart. See Gantt Chart Elements | Options(see page 0) for more details.
- **Status Bar** - If there are any inconsistencies in the source data, the Gantt Info link will be shown on the right side of the Structure status bar (next to the Structure Info link 🛈 at the bottom of the screen). Click the link to see details of the inconsistencies.

1.3 Working with Gantt Charts

1.3.1 Adjusting Start/Finish Date, Manual and Automatic Scheduling

If you have enabled Manual Scheduling and configured fields for the Start and Finish Dates in the configuration, you can adjust them by dragging a task to the desired location. You can also adjust them by changing Jira fields, either on the issue page or right in the structure (if you have added the columns containing the date fields to your view). If you have enabled sprint planning(see page 31), you can reschedule a task by dragging it from one sprint to another.

See Scheduling Tasks(see page 27) for more details.

1.3.2 Managing Dependencies

Dependencies are defined based on Issue Links. Changing dependencies creates or removes links between issues, and vice versa.

To create a Finish to Start dependency:

1. Mouse over the task bar until a black circle appears to the right of the bar
2. Press the circle and drag your dependency line to the task you want to link to
3. If you have more than one link type set up for Finish to Start dependencies, you may be asked to select the link type you wish to create.

To create other types of dependencies, use the Link button in the toolbar.

To remove a dependency:

1. Click the link arrow between two tasks to display the Dependency Properties
2. Click **Remove**

For more information about working with and configuring dependencies, see Working With Dependencies(see page 38).

1.3.3 Managing Resources

Structure.Gantt allows you to track resource usage on a project (or multiple projects). You can assign resources to issues using a Jira field (such as Assignee or a custom Team field) or a Structure attribute, such as a value calculated through Formulas[1]. Once resources are configured, Structure.Gantt can display the number of hours or percentage of availability assigned to each resource at a given time.

To view your assigned resources and their usage, click the Resources button or switch Layout to "Gantt + Resources."

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1 https://wiki.almworks.com/display/structure/Formula+Column
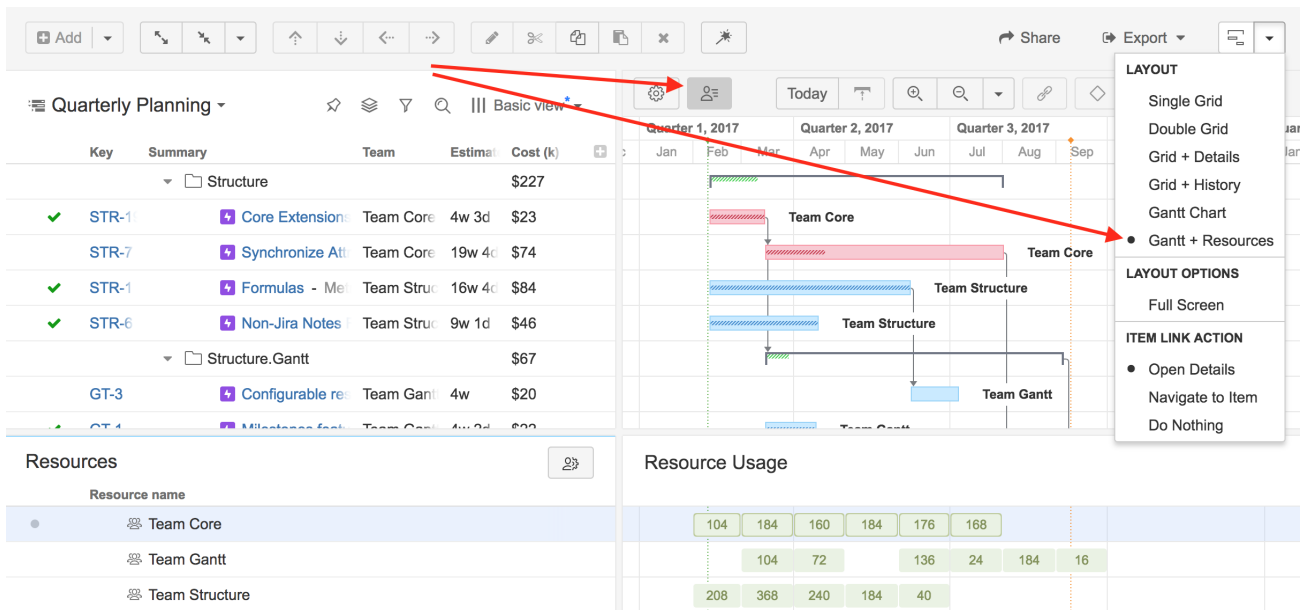
To assign resources to your tasks, see Resources.(see page 97) For additional information, see Resource Management(see page 54).

2 Introducing Structure.Gantt

Structure.Gantt allows you to display cross-project and cross-team work in a Gantt chart.

Is is built as an extension to Structure[2], the Jira app that allows to organize issues in adaptable, user-defined hierarchies.

> Sorry, the widget is not supported in this export.
> But you can reach it using the following URL:
>
> https://www.youtube.com/watch?v=dBuPMkbk5pU&rel=0&autoplay=0&modestbranding=1

Main Concepts

Every Gantt chart consists of two parts:

- Work breakdown structure, which defines the scope of work and which is built using Structure functionality
- The chart itself, which visualizes your tasks on the timescale, showing their start and finish dates, dependencies between them and other information
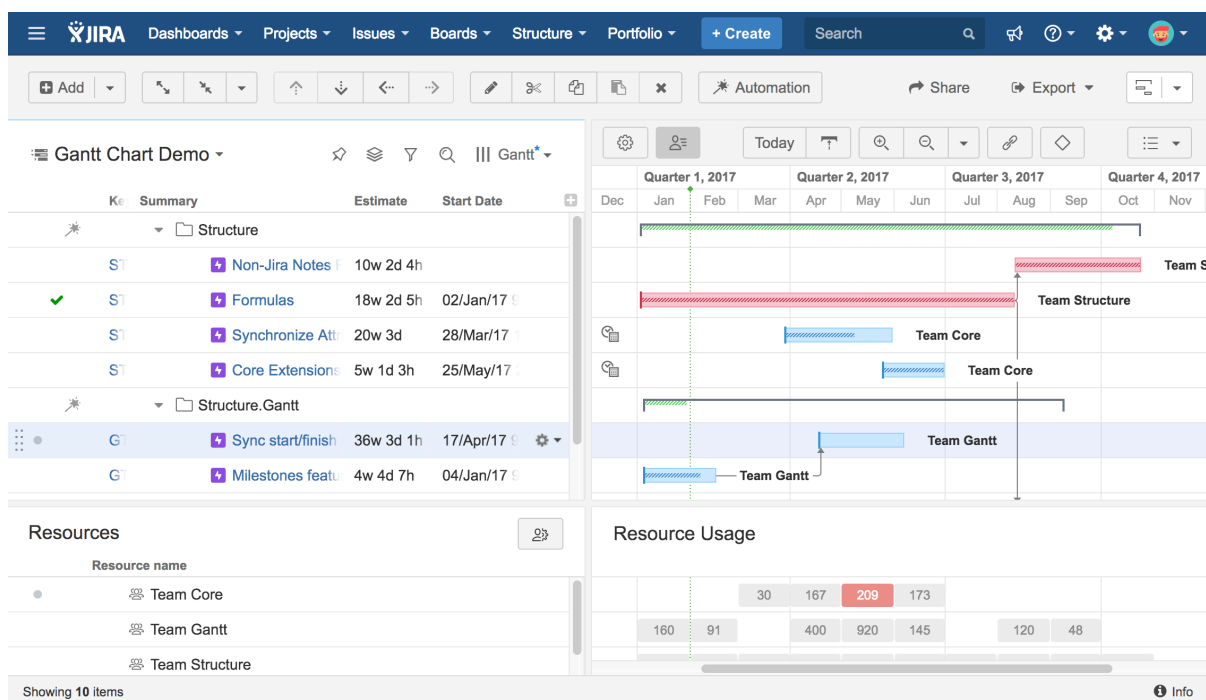
The chart is designed to be very configurable and allows you to use your Jira data (such as time tracking, date/time fields, links, etc) for visualizing your work on the timeline.

The chart consists of the following elements:

- The toolbar, which helps you navigate the chart, configure the view and do a few other things
- The timeline
- The chart itself with the tasks, dependencies and other useful information

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2 https://wiki.almworks.com/display/structure/Basic+Concepts

You can schedule your tasks, change tasks estimate and dependencies right in the chart(see page 26).

Configurations

You define how the Gantt chart should be build by creating a chart configuration(see page 86) - a set of parameters defining what should be used for estimation, scheduling, dependencies, resources, etc.

You can create multiple configurations and quickly switch between them for the same structure, or reuse any configuration in multiple structures.

2.1 Resource Management

Structure.Gantt allows you to visualize resource allocation and identify potential bottlenecks. For each individual resource you can define it's capacity, calendar, availability and the time zone(see page 54).

3 Creating Your First Gantt Chart

Depending on your needs and experience with Structure, there are a few different methods for creating a new Gantt Chart.

- To add a Gantt chart to an existing structure, see Define Your Chart Manually(see page 18)
- To create a chart for a new project, see Using Structure Wizard(see page 19)
- To create an Agile Gantt chart (visualize and plan your epics and stories based on their sprints), see Agile Gantt Chart Template(see page 22).

3.1 Define Your Chart Manually

If you are already working with a project in Structure, adding a Gantt chart couldn't be easier!

Once you have installed Structure.Gantt, two new options will appear under the **Toggle Panels** button:

- Gantt Chart
- Gantt + Resources
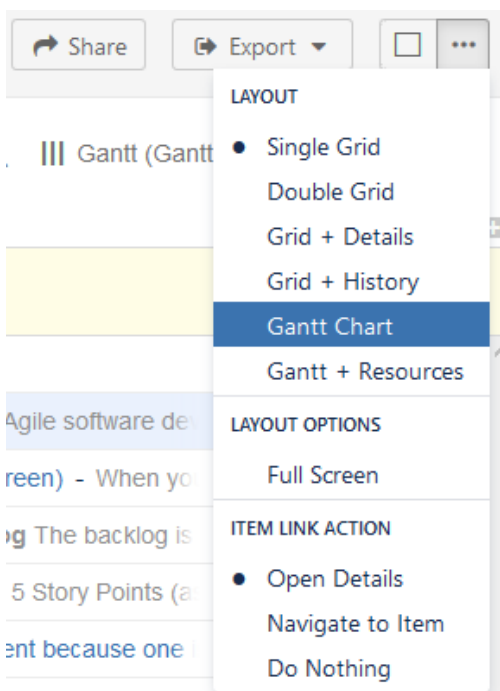
Selecting either of these options will open the Gantt Chart Settings screen. To create your Gantt chart:

1. Enter a Project Start Date
2. Select the Gantt Chart Configuration you wish to use for this structure (if you are unsure, we recommend starting with the **Default** configuration and modifying as necessary later)
3. Enter your Fix Version and Sprints Timeline Settings (optional). You can use these options to place markers on your timeline to indicate the dates of fix versions and current/anticipated sprints. For more information, see Gantt Chart Settings(see page 83).

Once you're done, click **Create Gantt Chart**.

That's it! Now you can skip ahead to Working with Your Gantt Chart(see page 26) to learn how to review and modify your project timeline.

> ⚠ If you select a configuration that has been shared by another user, any changes this user makes will affect your Gantt chart too.

> ⓘ To be able to create Gantt charts (even for existing structures) you need to have the appropriate permissions set for your account. To create a Gantt chart for a structure that you created, you must have permission to create new structures. To create a Gantt chart for a structure you did not create, you need Control access. If you are unable to create a Gantt chart for a structure, speak with your system administrator.

3.2 Using Structure Wizard

If you are new to Structure or want to create a new Gantt chart separate from any of your existing structures, we recommend using the Gantt Chart Template in the Structure Wizard. In a few simple steps, you can define your work breakdown structure (WBS), timeline, dependencies and other parameters which will be used for generating the Gantt chart.

> ✅ If you plan to use Structure.Gantt for sprint planning, you may want to try our Agile Gantt Chart Template(see page 19).

To open the wizard, go to the top **Structure** menu and click **Create Structure**.

Select the **Gantt Chart** template and click **Next**.

The Structure Wizard will walk you through the creation of your Gantt chart, including defining scope, WBS, dependencies, scheduling, and resources.

3.2.1 Define Scope

With Structure.Gantt, you can combine multiple projects and agile boards into a single, easy-to-read chart—or you can create highly-focused charts that only show select issues from one or more projects.

To define your scope:

1. **Select at least one Project or Agile Board to import issues from.** You can include as many projects and/or boards as you need—Structure.Gantt makes it easy to work with multiple projects at one time.
2. **Determine how you want multiple projects/boards displayed.** If you want to view them separately (organized in different folders), make sure the **Put each project or board into a separate folder** checkbox is checked. Otherwise, all issues will be placed together.
3. **Select which issue types to include.** By default, all issue types will be included. You can choose between Jira issue types or use JQL Query to limit the issues included. (You can change your selection later.)

3.2.2 Work Breakdown Structure

Structure allows you to arrange issues based on the relationships that exist in Jira, in order to create a visual representation of the hierarchies.

If you're working on a large project and/or multiple projects, there's a good chance you have tasks that also include sub-tasks and epics that span multiple stories. Structure.Gantt can automatically arrange your structure and chart, so you can easily visualize how larger parts are broken down into smaller pieces—and how the work is broken down.
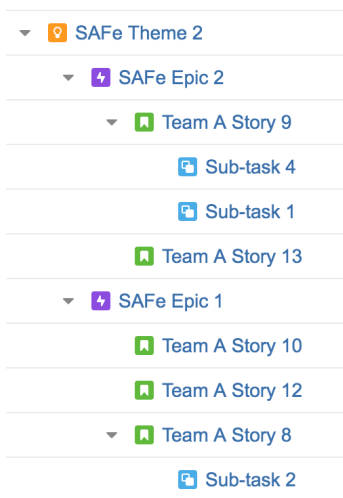
On the Work Breakdown Structure screen, you can select the following types of relationships to be represented in your chart:

- **Sub-tasks** – This places sub-tasks under their parents.
- **Agile Hierarchy** – This will put stories under the epics they belong to.
- **Portfolio Hierarchy** – If you are using the Atlassian Portfolio add-on, Structure can visualize the hierarchy you have in your Portfolio plans.
- **Issue Links** – If you use issue links to create hierarchy in Jira, Structure can visualize this hierarchy too. You can also specify the link type and direction. For example, if you have a link showing that issue A "contains" issue B, issue B will be added as a child of issue A in your structure.

3.2.3 Dependencies

Structure.Gantt uses Jira links to represent dependencies between issues.

By default, Finish to Start dependencies are displayed on your Gantt chart. To configure other types of dependencies, click the **Additional dependency types** link. (If you're not sure what dependencies you'll need, you can adjust dependencies settings(see page 94) at any time using Gantt configuration(see page 86)).

3.2.4 Scheduling

Structure.Gantt can use Jira time tracking fields (Original Estimate or Time Spent + Remaining Estimate) or Story Points to schedule tasks within your timeline.

On the Scheduling screen, you can specify how your timeline will be calculated and displayed:

- **Work Estimates** – Select whether you will use Time Tracking or Story Points to create work estimates.
  - If you use Story Points, enter an Hours Ratio (how long a single Story Point typically takes to complete) and Structure.Gantt will convert your Story Points into hours when calculating your timeline.
- **Manual Scheduling/Dates Visualization** – By default, Structure.Gantt automatically places items within your timeline based on estimates and dependencies; however, you can override this with Manual Scheduling. If you wish to use Manual Scheduling, select the fields where Start Date and Finish Date data will be located.

3.2.5 Resources

Structure.Gantt allows you to track your resource requirements throughout a project, so you can see at a glance when resources are over-tasked or available for additional work.

On the Resources screen, select whether or not you wish to track resource allocation and, if so, the field you will use to assign resources. You can choose from a variety of Jira fields or use a custom field or formula. Many of our customers use the **Assignee** field, so they can track individual workloads.

> ⓘ You can also use both at the same time by setting up a Formula for the resources(see page 97), but that is only possible using Gantt configuration(see page 86).

Congratulations! You've just configured your first Gantt chart. Click the Save Settings button, and the structure, its view[3] and the corresponding Gantt chart will automatically be created.

Here are a few additional resource to help you get started:

- If you're new to Structure, you can learn more about working within a structure on our Structure Documentation page[4].
- If you're ready to start managing tasks with Structure.Gantt, see Working with Your Gantt Chart.(see page 26)
- If you need to make changes to your Gantt chart configuration(see page 86), click the Settings button ⚙ on the top left of the Gantt screen.

> ⚠ To be able to create Gantt charts (even for existing structures) you need to have the appropriate permissions set for your account. To create a Gantt chart for a structure that you created, you must have permission to create new structures . To create a Gantt chart for a structure you did not create, you need Control access. If you are unable to create a Gantt chart for a structure, speak with your system administrator.

3.3 Agile Gantt Chart Template

If you're working in an Agile environment, where tasks are assigned to specific sprints rather than scheduled for specific dates, Structure.Gantt's sprint planning feature makes it easy to visualize and plan epics and stories across multiple projects.

The easiest way to get started is with our Agile Gantt Chart template.

3.3.1 Open the Agile Gantt Chart Wizard

To open the wizard, go to the top **Structure** menu and click **Create Structure**.

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3 https://wiki.almworks.com/display/structure/Configuring+View
4 https://wiki.almworks.com/display/structure/Documentation
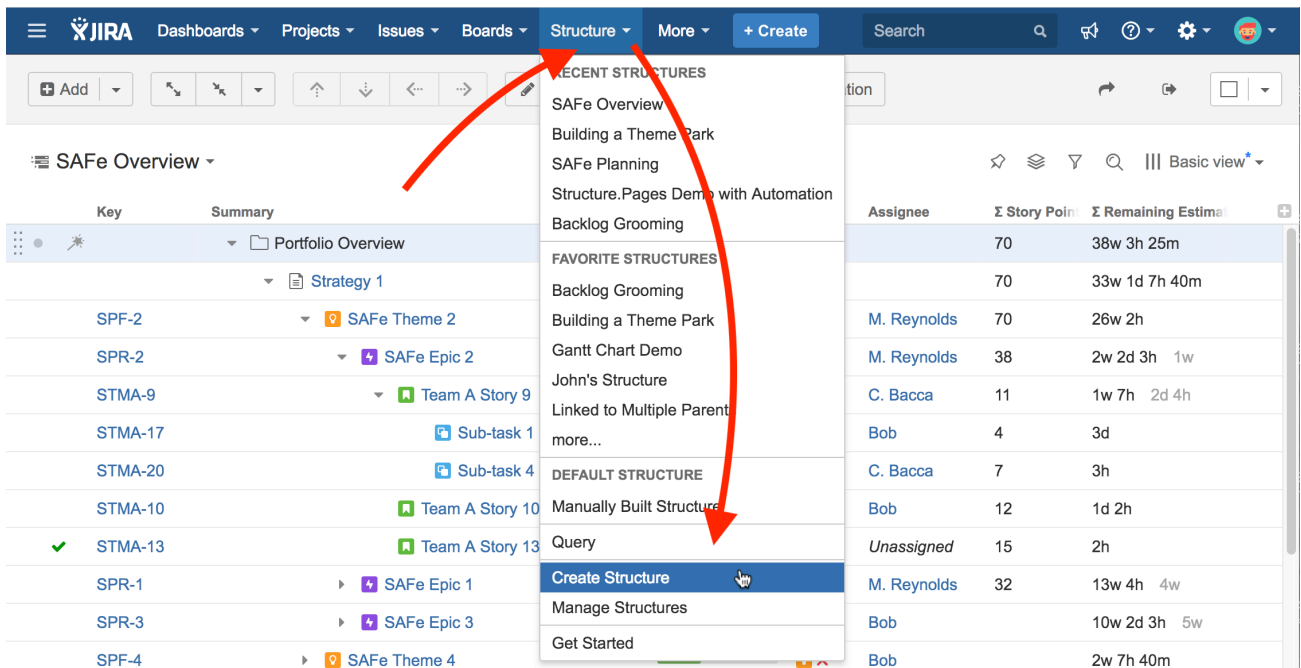
Select the **Agile Gantt Chart** template and click **Next**.
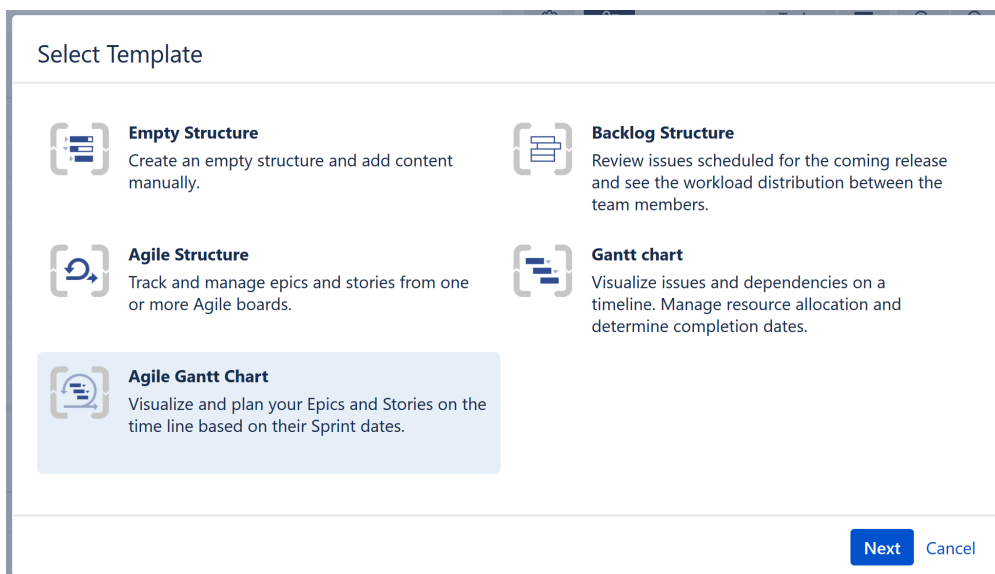
3.3.2 Select Your Gantt Chart Options

On the following screen, you'll customize your chart.

3.3.2.1 **Scrum Boards**

You can add issues from any board you have permissions for. Simply click the Scrum Boards field, locate the board you want to add, and click it. You can include as many boards as you need.

3.3.2.2 **Planning Level**

You can select from the following options when creating your Agile Gantt Chart:

- **Stories only** - adds all issues except epics and sub-tasks, placing them all at the same level within your chart.
- **Stories under epics** - adds stories (everything except epics and sub-tasks) beneath their respective epics in your chart.
- **Portfolio** - if Atlassian Portfolio is installed, this will add a portfolio level above epics.

3.3.2.3 Resources

Structure.Gantt allows you to track your resource requirements throughout a project, so you can see at a glance when resources are over-tasked or available for additional work.

If you wish to track resource allocation, check the **Track Resource Allocation box** and select the **Resource Field** that should be used to assign resources to your tasks. You can choose from a variety of Jira fields or use a custom field or formula. Many of our customers use the Assignee field or a custom Team field.

3.3.2.4 Sharing

In the Share With section, select who the chart should be shared with. Only the people you select will have access to view the structure and Gantt chart you create. You can change or customize these settings later in Structure Permissions[5].

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5 https://wiki.almworks.com/display/structure/Structure+Permissions

3.3.3 Create Your Gantt Chart

Once you've selected your options, click the **Create Structure and Gantt chart** button. Your new chart will be constructed using Structure's powerful Automation[6] feature. If you need to make changes to the issues included in your chart or how they are arranged, you can edit the automation rules[7] later.
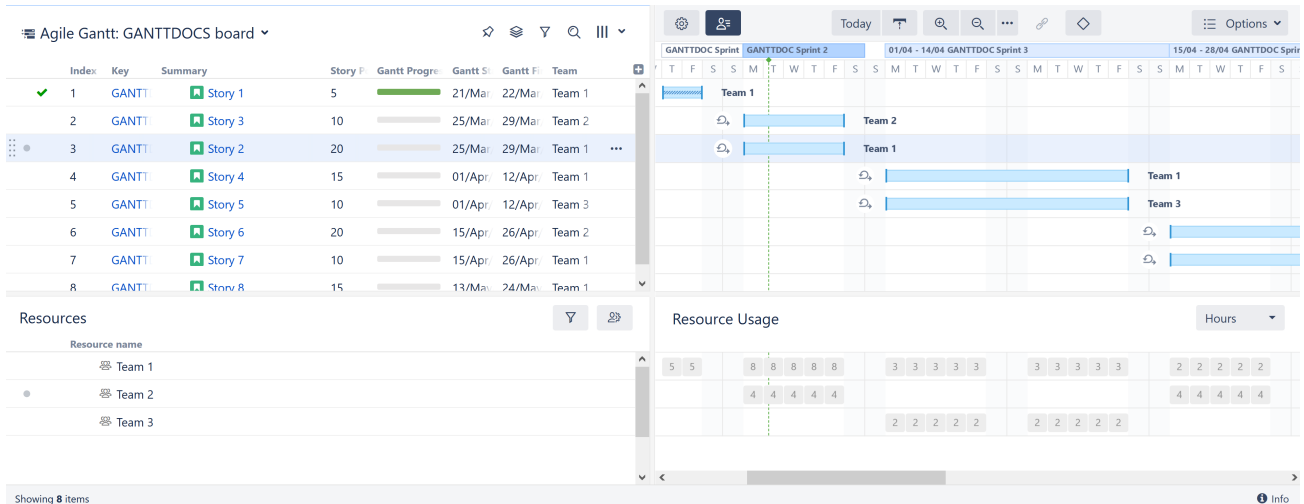
Issues will automatically be scheduled in your Gantt chart based on a 2-week estimate for future sprints and a custom Gantt configuration with the following settings:

- Work estimates are based on Story Points, with Time Tracking enabled if no Story Points data is available.
- The standard 40 hours/week calendar is used, unless there is no "Standard" calendar found.

To view or change these settings, see Gantt Configuration.(see page 86)

3.3.4 Additional Resources

Congratulations! You've just built an Agile Gantt chart.

Here are a few additional resource to help you get started:

- If you're new to Structure, you can learn more about working within a structure on our Structure Documentation page[8].
- If you're ready to start managing tasks with Structure.Gantt, see Working with Your Gantt Chart.(see page 26)
- If you need to make changes to your Gantt chart configuration(see page 86), click the Settings button ⚙ on the top left of the Gantt screen.

> ⚠ To be able to create Gantt charts (even for existing structures) you need to have the appropriate permissions set for your account. To create a Gantt chart for a structure that you created, you must have permission to create new structures . To create a Gantt chart for a structure you did not create, you need Control access. If you are unable to create a Gantt chart for a structure, speak with your system administrator.

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6 https://wiki.almworks.com/display/structure/Automation
7 https://wiki.almworks.com/display/structure/Editing+a+Generator
8 https://wiki.almworks.com/display/structure/Documentation

4 Working With Your Gantt Chart

Once you have created your Gantt chart, you will see the work breakdown structure (WBS) in the left panel and the chart itself in the right panel. Depending on your panel layout, you may also see the Resources and Resources Usage panels at the bottom of the screen.
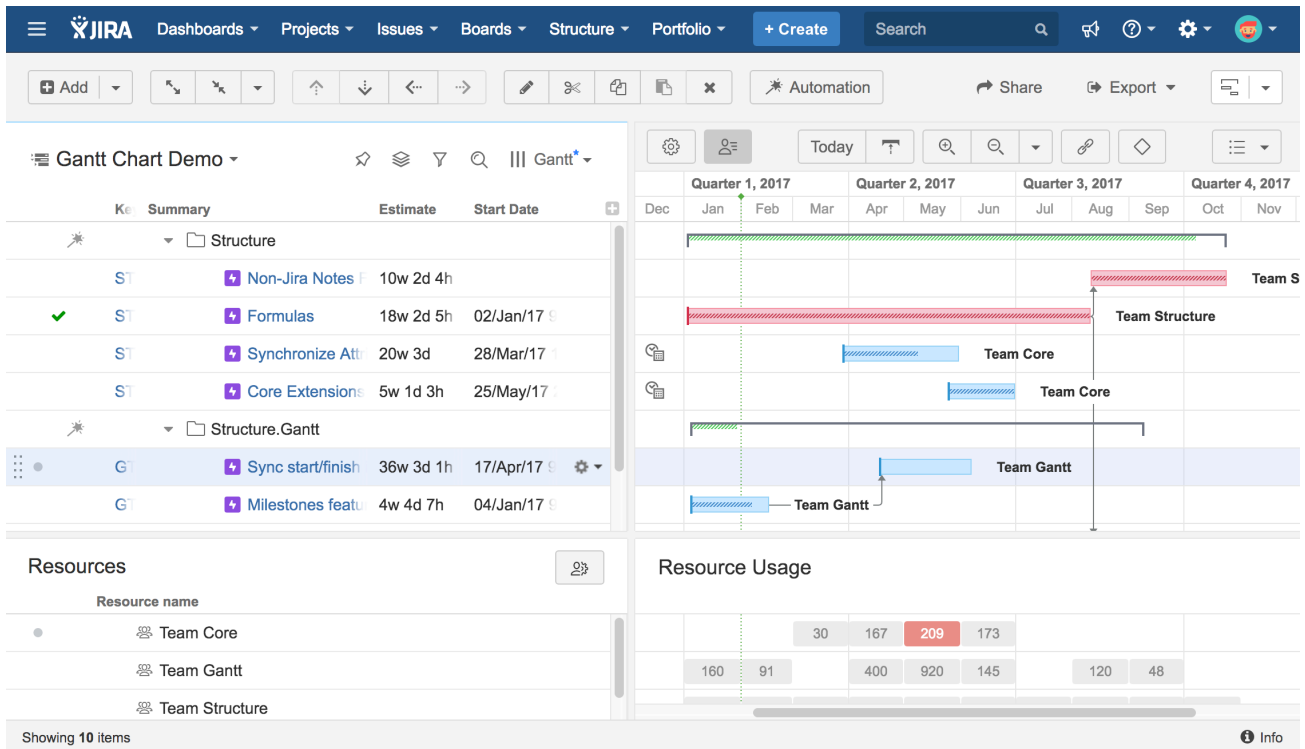
When working with a Gantt chart, you can make most scheduling changes directly from the toolbar and your timeline. In some cases, you may need to change your Gantt chart configuration, which we will discuss later.

To start working with your Gantt chart right away, see Scheduling Tasks.

For a closer look at the menu and layout, see Gantt Chart Elements.

4.1 Working With Tasks

Structure.Gantt not only allows you to easily visualize your tasks and the dependencies between them on a timeline. You can also schedule tasks, change tasks estimates and create dependencies right in the chart. To learn more about working with tasks in your timeline, see the appropriate article(s) below.

- Scheduling Tasks
- Adjusting Duration
- Working With Dependencies
- Scheduling Conflict

4.1.1 Scheduling Tasks

Gantt charts can be scheduled automatically based on project start dates, task estimates, predecessors and dependency types. Or tasks can be manually scheduled based on Start/Finish dates or sprints.

- Automatic Scheduling(see page 27)
- Manual Scheduling by Start or Finish Date(see page 28)
- Planning with Sprints(see page 31)
- Fixed Duration(see page 35)

4.1.1.1 Automatic Scheduling

By default, Structure.Gantt will auto-schedule tasks based on your project start date, task estimates, predecessors and dependency types. If you are working from a brand new structure and haven't yet set up dependencies or Start and Finish dates, chances are your Gantt Chart looks something like this:
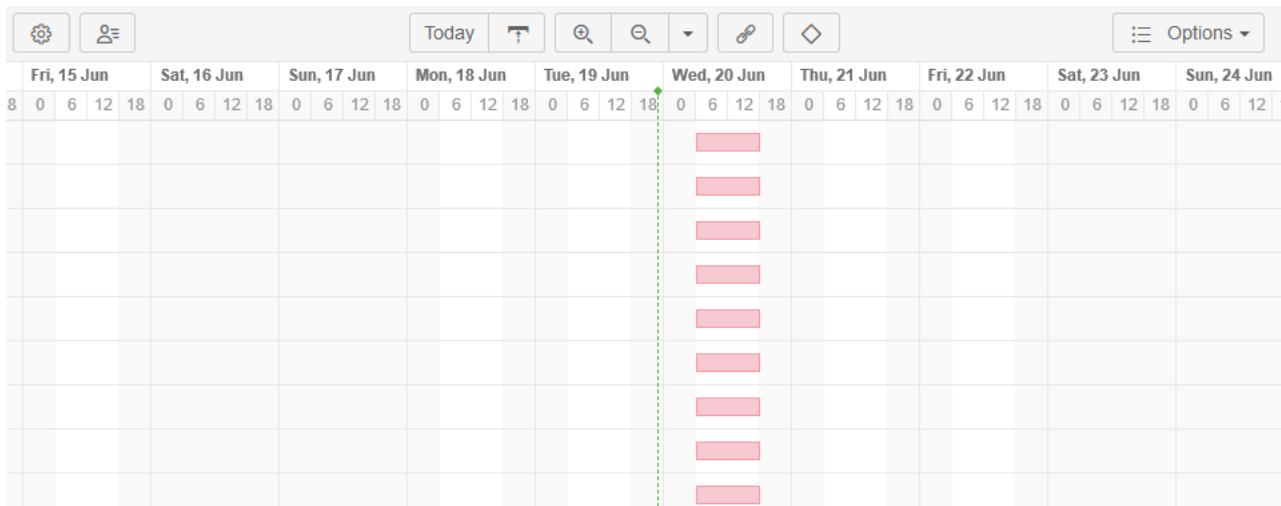
As you create dependencies between items, your chart will automatically update so that successor tasks do not start until their predecessor is complete (or until the predecessor is estimated to be complete).
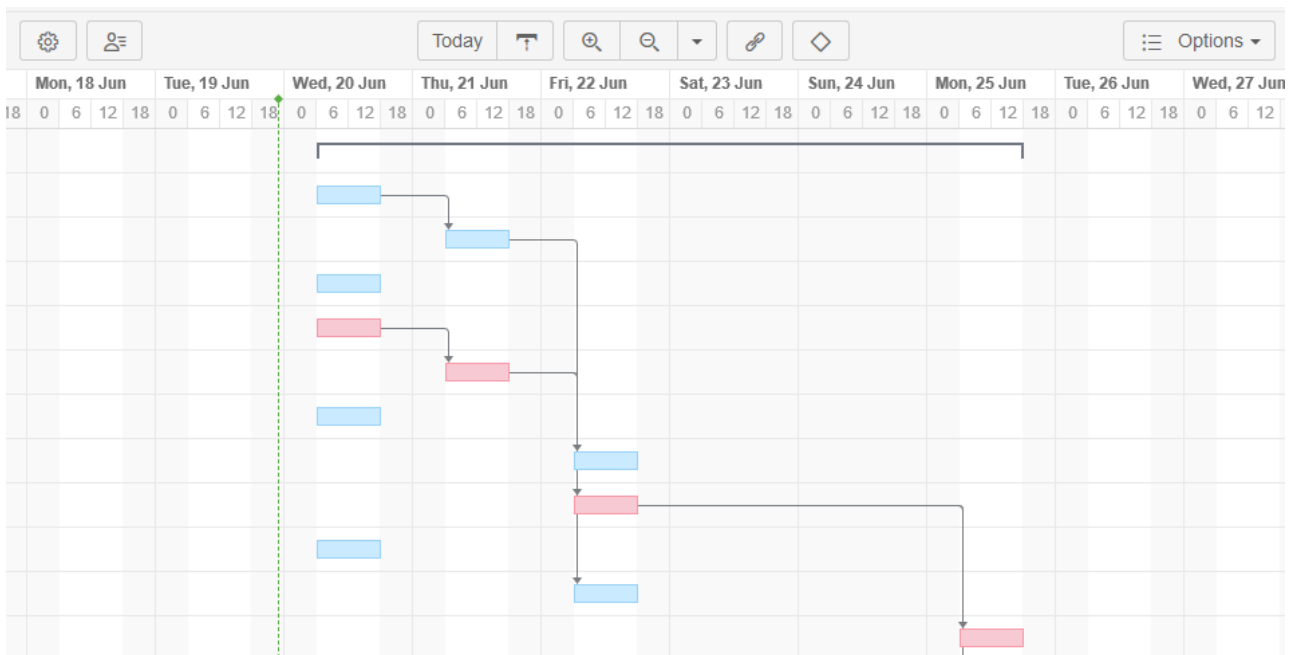
As you move items around in your structure or change dependencies, your tasks will move within your timeline as well.

> ⓘ The example above illustrates Finish-to-Start dependencies. You can also configure Start-to-Start, Finish-to-Finish and Finish-to-Start dependencies, and Structure.Gantt will schedule them accordingly.

4.1.1.2 Manual Scheduling by Start or Finish Date

Manual Scheduling

While automatic scheduling is a powerful tool for visualizing your project timeline and working with dependencies, there are times when you may need to manually schedule Start or Finish dates. For example, you may need to push back a Start Date due to resource limitations or budgeting issues, or some tasks may require a strict Finish Date because of an impending deadline.

Manual Scheduling

☑ Allow manual scheduling

Start Date | Start Date | ▼ | ⚙
No time information

Finish Date | Finish Date | ▼ | ⚙
No time information

Milestone Date | None | ▼

☐ Use sprints for manual scheduling

☑ Prefer sprints over manual start and finish dates

☑ Use Resolution Date as the Finish Date

Position a resolved issue to finish at its Resolution Date, unless it is
manually scheduled.

To manually edit task Start and Finish dates, you must first enable Manual Scheduling in Gantt Configuration
in Details(see page 86)**:**

1. Click the Gantt Chart Settings button ⚙ on the left side of the chart toolbar
2. Under Gantt Chart Configuration, click **Edit** to update the current configuration (click **Manage Configuration** to select a different configuration or create a new one)
3. On the Scheduling screen, check the **Allow manual scheduling** box
4. Select the Jira fields that will be used for your Start and/or Finish dates

> ⚠ If **Use sprints for manual scheduling** is selected, Structure.Gantt will also consider sprint dates when scheduling tasks. The article below explains how Structure.Gantt behaves when that option is not selected or tasks are not assigned to a sprint. To learn more about sprint-based scheduling, see Planning with Sprints(see page 29).

Once you have enabled manual scheduling, you can quickly adjust a task's schedule by dragging the task to a desired location in your timeline. As you move the task bar, one of three things will happen to your corresponding Jira fields:

- If you have manually set both Start and Finish dates, both date fields will be updated
- If you have only manually set the Start Date, only the Start Date field will be updated (the Finish Date will continue to be automatically scheduled based on task estimates and dependency types)
- If you have only manually set the Finish Date, only the Finish Date field will be updated (the Start Date will continue to be automatically scheduled based on task estimates, predecessors and dependency types)

You can also adjust the Start and Finish dates by changing the corresponding Jira fields - either on the issue page or right in the structure (you'll need to add the columns[9] containing your date fields).

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9 https://wiki.almworks.com/display/structure2gmaster/Customizing+Columns
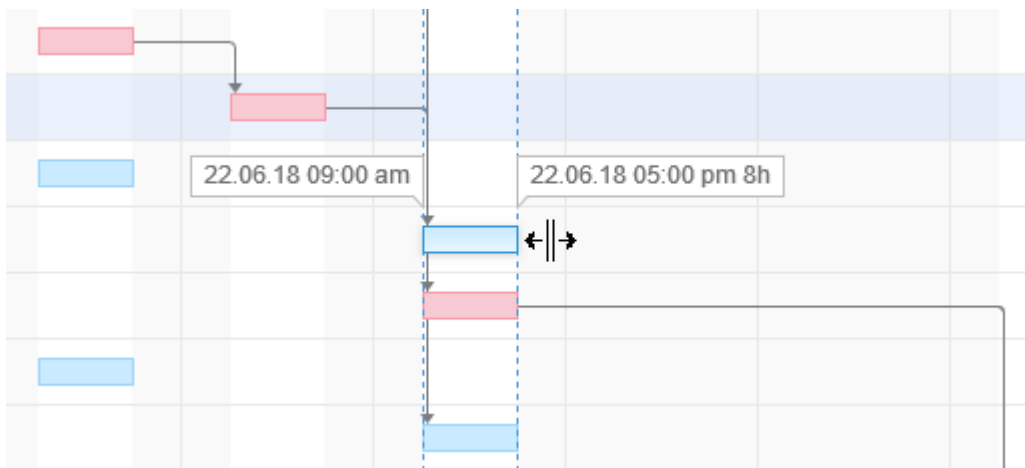
Once you schedule a task manually, Gantt will place a visual indicator (dark, vertical line) at the corresponding end of the task bar, so you can quickly identify manually scheduled tasks.
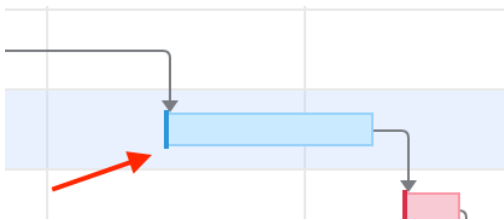
To adjust a task's Finish Date (without changing the Start Date), hover over the right edge of the bar. Once the mouse pointer changes to the resize tool, click and drag left or right to set the new Finish Date. Since the Start Date remains unchanged, this process also updates the task's Original Estimate (if the task hasn't been started) or Remaining Estimate (if the task is in progress).

You can also adjust a task's Start Date (without changing the Finish Date) by dragging the left side of the bar. In this case, the Finish Date remains unchanged, while the Original Estimate/Remaining Estimate or custom estimate is updated.
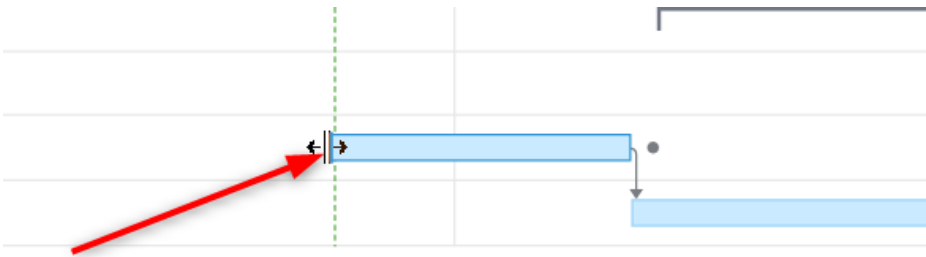
Manual Scheduling uses the following rules:

- If neither Start nor Finish dates are defined, the task is scheduled automatically to start either at the Project Start Day you selected when configuring your Gantt chart or based on the task's dependencies. For example, in the case of a Finish to Start dependency, the task will be scheduled to start immediately following the Finish Date for the task it depends on. (Note: If Use sprints for manual scheduling(see page 92) is selected and the task is assigned to a sprint, the task will be scheduled based on its sprints(see page 31).)
- If you move a task in the chart, it's Start Date value will be set accordingly, and the task will be considered scheduled manually. If the Finish Date is not set manually, it will be calculated based on the task's Start Date and work estimate.
- If you set the Finish Date manually, the Start Date will be calculated based on the Finish Date and work estimate. If you then move the task, the Finish Date will be adjusted accordingly.
- If you set both Start and Finish dates for your task, it will have a Fixed Duration(see page 35), and its work estimate will be divided evenly between the Start and Finish dates. Moving the task bar in the chart will change both the Start and Finish dates accordingly, without affecting work estimate.

> ⓘ As you set the Start/Finish Date or use sprint-based scheduling, the task is considered to be scheduled manually. This means it will stay at the defined position regardless of its dependencies.
> To switch back to the Automatic Scheduling mode, click the task to see the Task Details panel(see page 50) and toggle the Scheduling option to **Auto**. Your Start/Finish dates will remain in Jira, but they will not be used for scheduling purposes. Instead, the task will be placed after its dependencies or, if no dependencies exist, the Gantt Start Date will be set to the Project Start Day, as defined in the Gantt Chart Settings. You can also turn off manual scheduling for a task by removing the Start/Finish dates from the corresponding Jira fields.

4.1.1.3 Planning with Sprints

In an agile environment, tasks are often assigned to a specific sprint, rather than specific dates. With the Use Sprints for Manual Scheduling(see page 92) option enabled, tasks can be scheduled to begin and end based on sprint dates. You can also move a task to a different sprint(see page 31) directly from your Gantt chart.
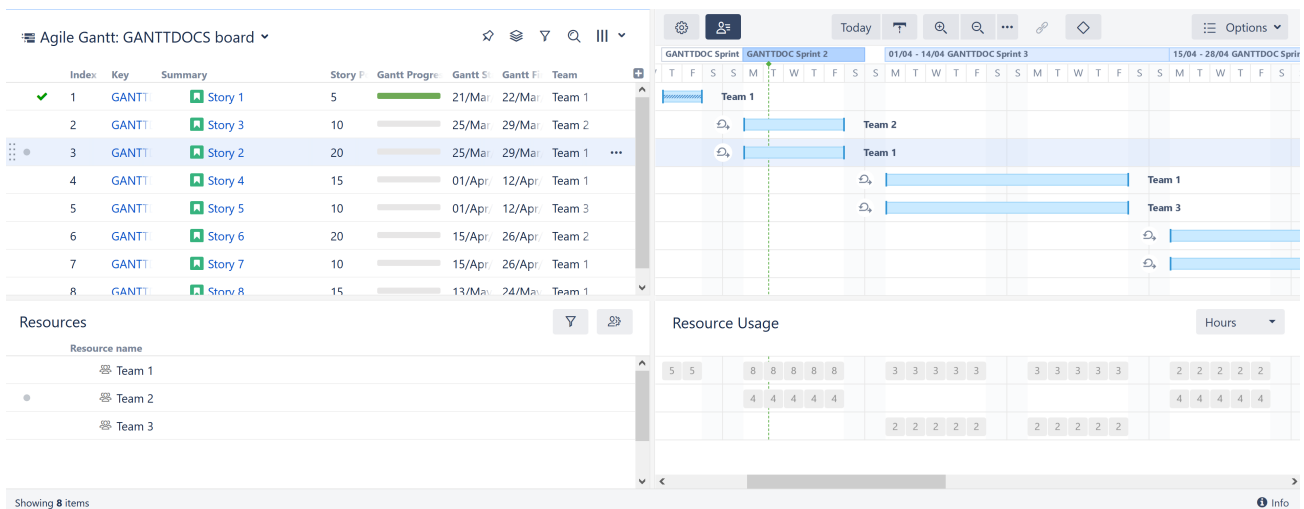
If a task has more than one sprint assigned to it, Structure.Gantt will use the most recent sprint (based on actual and/or anticipated sprint end dates) for scheduling and visualization.

> ⓘ When tasks are scheduled by sprint, you will see the Agile icon ⟳ beside the task bar.

Visualizing Sprints

Sprints are represented in the chart header as follows:

- White bars represent closed sprints
- The deep blue bar represents an active sprint
- Blue bars represent future sprints

At some zoom levels, sprints will not be shown due to space limitations. To view sprints, simply zoom in.

Future Sprints

Jira does not allow you to specify dates for future sprints, so Structure.Gantt schedules future sprints based on your Sprint configuration(see page 85) settings.

Fixed Duration

Tasks that are scheduled by sprint have a Fixed Duration(see page 32). They are scheduled for the entirety of the sprint, regardless of their work estimate, with the assumption that team members will work on tasks as they have availability during the sprint period, rather than in a set order or at a specific time. When calculating resource usage(see page 55), Structure.Gantt spreads the work for each task evenly across the sprint.

See Fixed Duration(see page 32) for more details.

Tasks with Start/Finish Dates and Sprints

If a task has a Start and/or Finish date and is assigned to a sprint:

- If the **Prefer sprints over manual start and finish dates** is selected in your Gantt configuration(see page 92), the task will be scheduled based on the sprint
- If this is not selected, the task will be scheduled based on the Start/Finish date

See Scheduling Precedence(see page 93) for more information.

Parallel Sprints

If you're working with Parallel Sprints, please note that at this time Structure.Gantt only supports parallel sprints with the same start dates and durations. When dragging a task from a board with parallel sprints, Structure.Gantt will always check which print you wish to reassign the task to.

> ⚠ Parallel sprints with different start dates and/or durations are not currently supported in Structure.Gantt. While tasks from such sprints will still appear in your Gantt chart, their sprint dates may not be displayed correctly. Structure.Gantt will take the earliest start date and latest finish date and treat all parallel sprints as having these dates when visualizing them within your chart.

Same Sprint on Multiple Boards

Structure.Gantt schedules sprints based on the board they were created in. This usually works quite well, but it can result in some unusual behavior if you have copied boards within your Jira instance. This is because copied boards maintain the same sprints as the original, and new sprints can be added on either board. **If you have different sprint planning settings for each board in Structure, sprints created on one board will follow a different timeline from sprints created on its copy.**
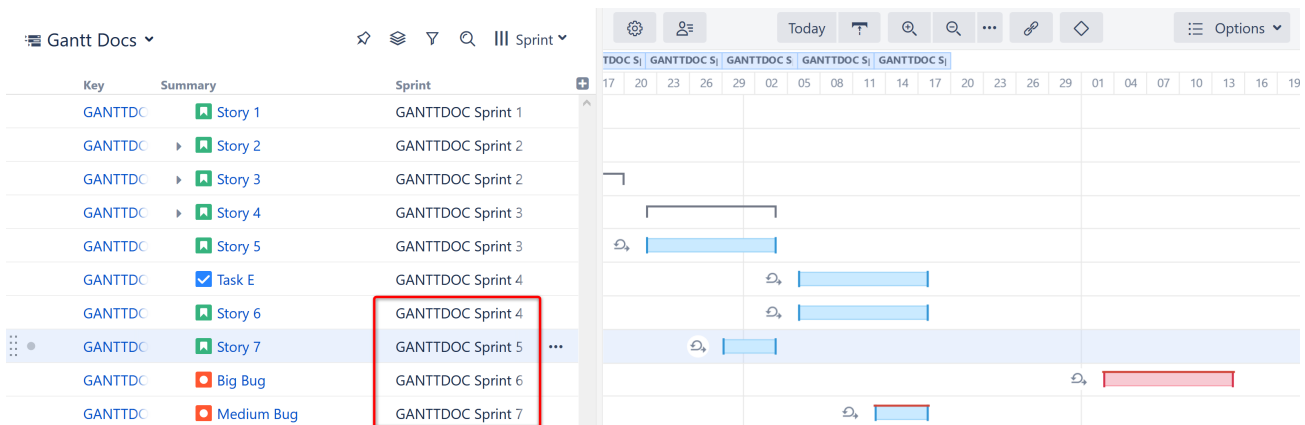
In the example above, it appears as though we have scheduled Sprints 5 before Sprint 4 and Sprint 7 before Sprint 6! This happened because we created Sprints 4 and 6 in our original board and Sprints 5 and 7 in its copy. We then intentionally created different Sprints configurations(see page 85) for the the two boards (2 week durations for the original board, 1 week for the copy).

> ⚠ We only did this for the demonstration - we don't recommend it!

Because future sprints are scheduled based on the board they were created in, Sprints 5 and 7 have shorter durations than the other sprints. If we reassigned Medium Bug to Sprint 6, it would change to the 2-week schedule. Likewise, if we reassigned Big Bug to Sprint 7, it would shift to the 1-week schedule.

Fortunately, you can easily avoid this behavior in one of two ways:

1. Use the same Sprints Configuration for everything. If you don't have any custom configurations, all future sprints will be scheduled using your default configuration.

Sprints configuration

| Sprint start day | MON ▾ | Duration | 2 | week(s) |

Default sprint start day and duration for Agile tasks

Add sprints configuration

2. When setting up board-specific configurations, be sure to include all board copies. This way, future sprints will be scheduled the same, regardless of where they were created.

Boards: GANTTDOCS board ✕ / Copy of GANTTDOCS board ✕ 🗑

| Sprint start day | MON ▾ | Duration | 1 | week(s) |

Add sprints configuration

Once the boards have been aligned, our future sprints will be scheduled appropriately.
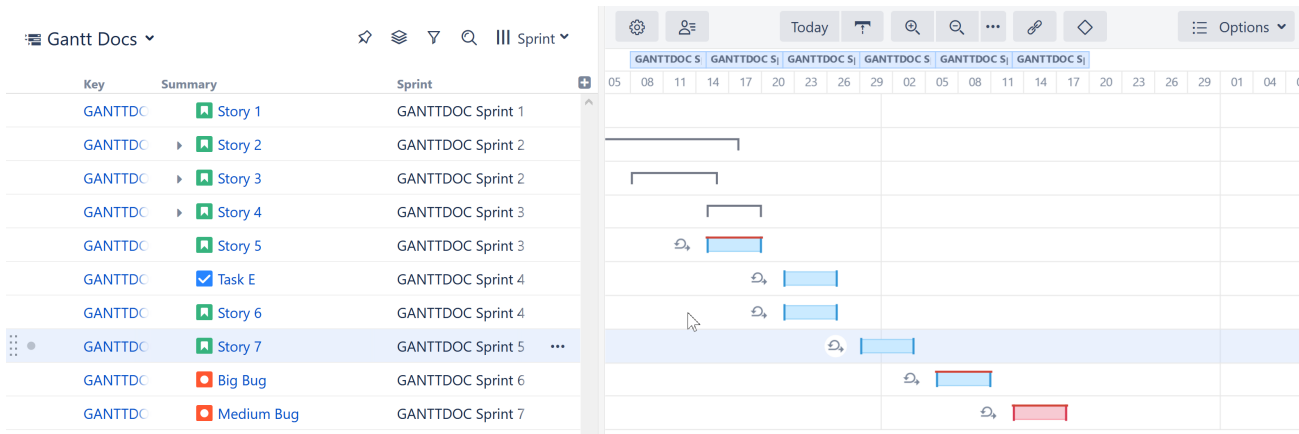
> ⓘ If a custom configuration is not created for a specific board, sprints from that board will be scheduled using the default configuration.

Reassigning Sprints with Structure.Gantt

If tasks are manually scheduled by sprints,(see page 31) you can assign a task to a new sprint directly from the Gantt chart. To do so:

- Drag the task to the new sprint within the Gantt chart, or
- Update the Sprint in the Task Details panel
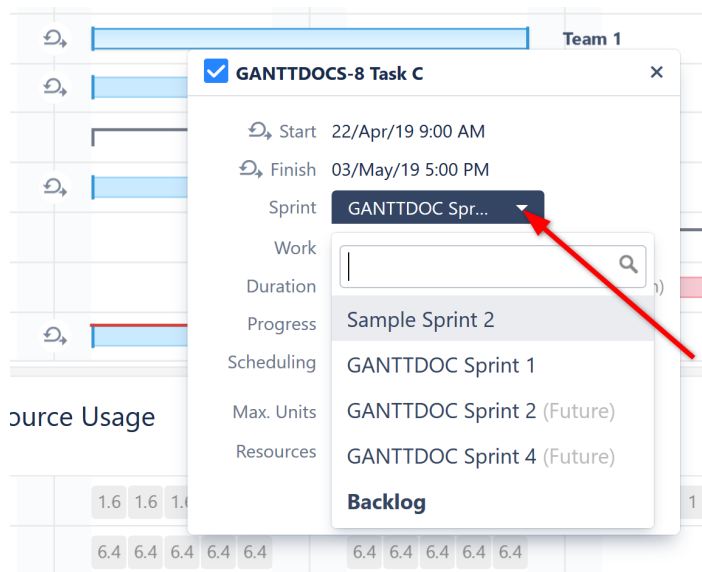
When dragging a task, only sprints that belong to the same board as the issue will be suggested. In the Task Details panel, you can select from any sprint available to the current user.

Can't Select a Sprint When Dragging the Task

If you don't see sprint options when dragging a task, it could for one of two reasons:

1. **Prefer sprints over manual start and finish date** is not selected in the Gantt configuration AND the issue has a Start or Finish date assigned. In this case, dragging the task will only adjust the Start/Finish date. You can still update the sprint in the Task Details panel - but it still will not be scheduled based on the sprint. To do that, you need to update your Gantt configuration or remove any Start/Finish dates.
2. The task has never been assigned to a sprint. In this case, Structure.Gantt does not know which board to display sprints from. You can still select a sprint using the Task Details panel, where you can choose from any sprints available to the current user.

Backlog

If you need to unassign a task from a sprint without reassigning it to another, open it's Task Details panel(see page 50) and change the Sprint selection to **Backlog**. Once a task is moved to the backlog, it will be automatically scheduled(see page 27) within your Gantt chart.

> ⓘ Tasks cannot be assigned to or removed from closed sprints.

4.1.1.4 Fixed Duration

It is common to have tasks that need to be completed in a set period of time, but don't necessarily require an equivalent amount of work. For example, you might have two weeks to fix a bug, but fixing it will only take a few hours. Using Fixed Duration, Structure.Gantt helps you estimate the average work required for those tasks and plan accordingly.

When a task's Start and Finish dates are both assigned (either by manual scheduling(see page 28) or by sprint(see page 31)), the task has a Fixed Duration, which means the duration of the task is independent of the work required to complete that task.

When updating a fixed duration task:

- Adjusting the amount of work required for the task does not affect its duration.
- Moving the task's Start or Finish Date will change the duration but not change the work requirement. Instead, the same amount of work will be redistributed across the new duration (see below).

Work Distribution

With fixed duration, the amount of work that needs to be completed for a task (it's work estimate) is divided evenly across the the duration when calculating resource usage(see page 55). So if an issue's work estimate is 10 hours (1d 2h) and the task has a fixed duration of 10 working days, the issue would require 1 hour of work each day.
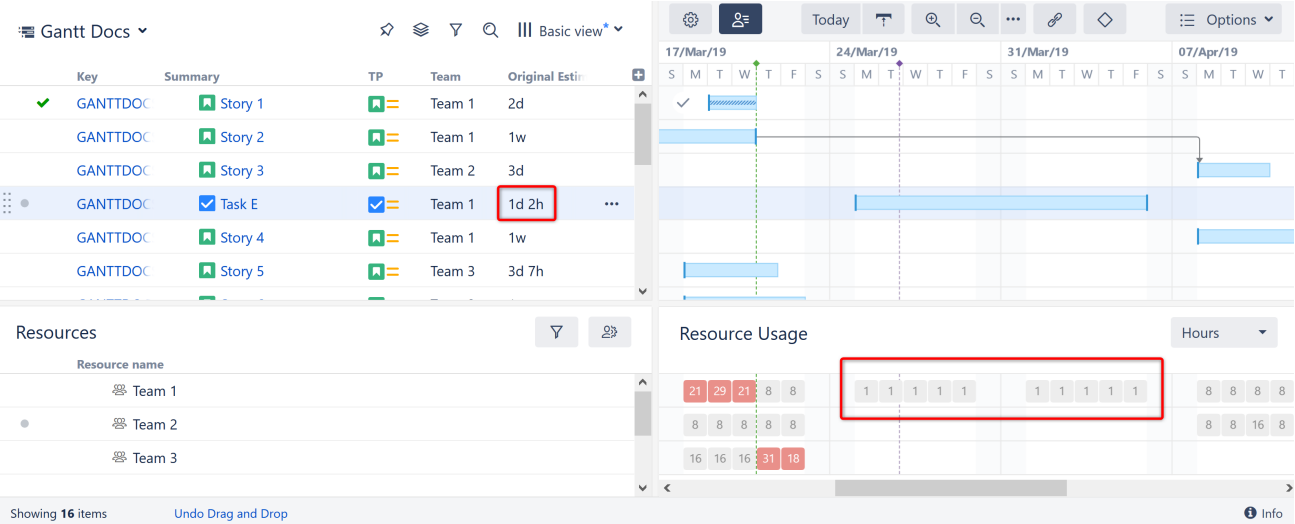
> (i) If a task requires more work than the assigned resource can complete in a given period of time, a red line will appear over the task, indicating there is a Scheduling Conflict(see page 42).

4.1.2 Adjusting Duration

In Structure.Gantt, duration for each task can be calculated in one of three ways.

4.1.2.1 Automatically

When tasks are automatically scheduled(see page 27) or manually scheduled(see page 91) without a fixed duration(see page 35), their duration is calculated automatically, based on their work estimates and the Work Estimates settings(see page 89) associated with that task.

To adjust the duration of these tasks:

- Edit the task's work estimate fields, or
- Drag the left or right side of the task bar.

Dragging Automatically Scheduled Tasks

If you drag the right side of a task that is automatically scheduled, the task remains in automatic scheduling mode, but its duration is updated. If you drag the left side of the task, the task becomes manually scheduled based on the new Start Date and it's duration is updated accordingly.

In either case, the duration will be updated as follows:

- If you are using Jira Time Tracking, the Original Estimate field value will be updated (for issues with no time logged) or the Remaining Estimate field value will be updated (for the issue with time logged)
- If you selected **Prefer Custom Estimate over Time Tracking** for Work Estimates(see page 89), the value in the custom estimate field will be adjusted based on the ratio defined in the configuration.

Dragging Manually Scheduled Tasks

When you drag the side of a manually scheduled task, if the side of the task you are dragging was manually scheduled, the corresponding field (Start or Finish Date) will be updated to the new date and the duration will be updated accordingly. Otherwise, only the duration will be updated.

In either case, the duration will be updated as follows:

- If you are using Jira Time Tracking, the Original Estimate field value will be updated (for issues with no time logged) or the Remaining Estimate field value will be updated (for issues with time logged)
- If you selected **Prefer Custom Estimate over Time Tracking** for Work Estimates(see page 89), the value in the custom estimate field will be adjusted based on the ratio defined in the configuration.

4.1.2.2 Based on Start and Finish Dates

When tasks are manually scheduled(see page 91) and have both a manual Start and Finish Date, the task has a fixed duration(see page 35), spanning the time between its Start Date and Finish Date.

To adjust the duration of a fixed duration task, drag either side of the task bar. This will update the task's Start or Finish Date, and the duration will be adjusted accordingly.
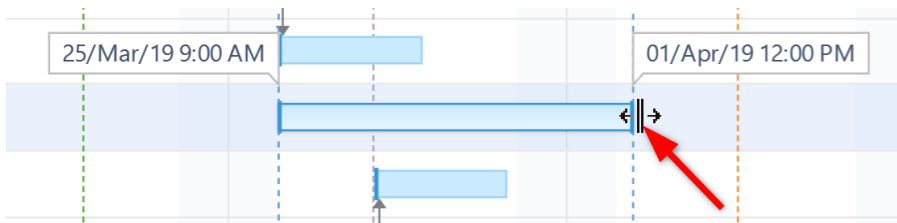
> (i) Adjusting the duration of a fixed duration task does not affect its work estimate.

4.1.2.3 Based on Sprints

When tasks are scheduled based on sprints(see page 31), they have a fixed duration(see page 35) corresponding to the length of the sprint. It is not possible to adjust the duration of these tasks, except by removing them from sprint-based scheduling or changing your sprint duration (see page 85)settings.

4.1.3 Working With Dependencies

In Structure.Gantt, dependencies are defined based on Issue Links. Changing dependencies creates or removes links between issues (the link type is defined in the Gantt configuration(see page 86)).

Structure.Gantt supports Finish to Start, Start to Start, Finish to Finish and Start to Finish dependencies.

4.1.3.1 Finish to Start Dependencies

Structure.Gantt uses Finish to Start dependencies by default. To enable other types of dependencies, see Gantt Configuration | Dependencies(see page 94).

To create a Finish to Start dependency:

1. Mouse over the task bar until a black circle appears to the right of the bar.
2. Press the circle and drag your dependency line to the task you want to link to. Once you release the mouse button, the dependency (and the corresponding Jira link) is created.
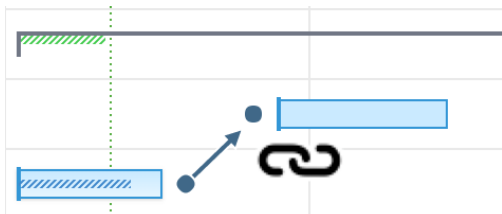
If you have more than one link type associated with Finish to Start dependencies, you will be asked which link type you want to use.
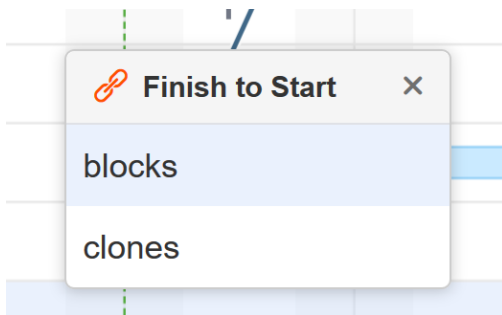
You can use favorites to streamline the selection process:

- If you favorite one Finish to Start link type, Structure.Gantt will skip the popup and use that type every time
- If you favorite multiple Finish to Start link types, only your favorites will be listed in the popup

See Dependencies(see page 94) *for more information.*

> ⓘ If Resource Leveling(see page 63) is active, any leveling delays affecting the newly-linked items will be removed.

4.1.3.2 Other Dependency Types

To create other types of dependencies:

1. Click the Link button 🔗 in the toolbar
2. Select the Dependency Type
3. Select the tasks you want to include in the dependency
4. If you need to re-order the tasks, click **swap**
5. Click **Create Dependency**

⚠ If you haven't configured a Dependency Type, you won't be able to select it in the New Dependency menu.

To configure dependency types, see Gantt Configuration | Dependencies.

4.1.3.3 Dependency Properties

To view the details of an existing dependency, click the link arrow connecting two tasks.

4.1.3.4 Deleting Dependencies

To delete a dependency, click the **Remove** link in the Dependency Properties panel.

ⓘ If Resource Leveling is active, any leveling delays affecting the previously-linked items will be removed.

Next Step: Gantt Chart Elements

4.1.4 Scheduling Conflict

Structure.Gantt highlights any scheduling conflicts with a dark red line placed on top of the task bar. To review and resolve the conflict, open the Task Details panel. The conflict will be explained at the bottom of the panel, along with resolution options.

4.1.4.1 Dependency-based Scheduling Conflicts

Issue dependencies may create conflicts when manual scheduling is enabled. For example, for finish-to-start dependencies, if a task is scheduled for a date earlier than its predecessor's Finish Date, Structure.Gantt will highlight this conflict.
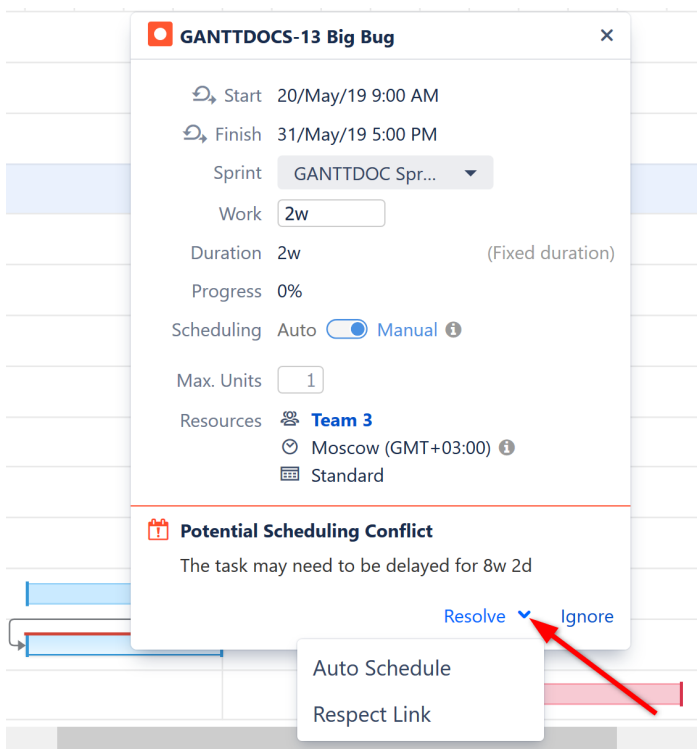
To deal with the conflict, click the task and select one of the following actions:

- **Respect Link -** Changes the task Start Date to coincide with the predecessor's Finish Date. The task will stay in the Manual Scheduling mode.
- **Auto Schedule** - Switches the task to the Automatic Scheduling mode, clearing its Start Date or Finish Date and scheduling the task based on its predecessor and the dependency type.
- **Ignore** - Removes the highlighting from the task bar, but the conflict will stay, and the conflict details will remain in the details panel.

> ⓘ   If Resource Leveling(see page 63) is active, any leveling delays affecting the item will be removed when **Respect Link** or **Auto Schedule** is selected.

4.1.4.2 Duration/Work Estimate Conflicts

If a task is scheduled for a fixed duration(see page 35) shorter than its work estimate, you will receive an error message.
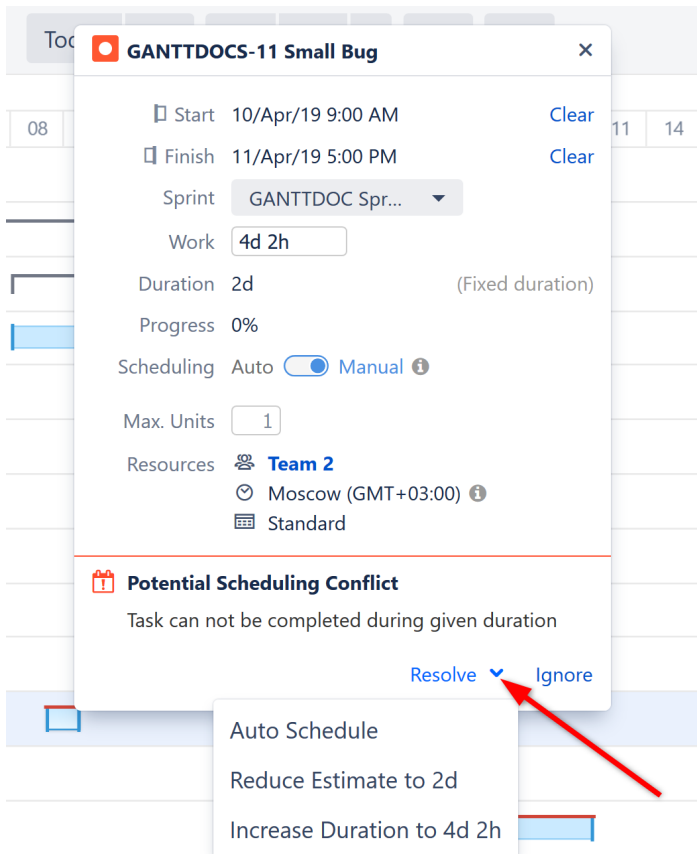
When this occurs, you have a few options to resolve the conflict:

- **Auto Schedule** - Removes manual scheduling.
- **Reduce Estimate** - Reduces the task's work estimate to match its duration.
- **Increase Duration** - Increases the tasks duration to match its work estimate. If the task was scheduled based on sprints(see page 31), a manual Start Date will be added to coincide with the start of its sprint and the task will be manually scheduled based on that date.

> ⚠️ If **Prefer sprints over manual start and finish dates** is selected in your Gantt configuration, the Increase Duration option will be unavailable, because changing the start date would have no effect when sprints take precedence.

4.2 Gantt Chart Elements

The following section will walk you through the elements of your Gantt chart panel and explain how to accomplish many common tasks.

4.2.1 Toolbar

Using the toolbar, you can:

- Access Gantt Chart Settings
- Show/hide resources
- Adjust the chart's appearance
- Select which elements are shown within your timeline
- Create dependencies(see page 38)
- Turn tasks into milestones
- Apply Resource Leveling(see page 63)
- Manage Baselines(see page 58)
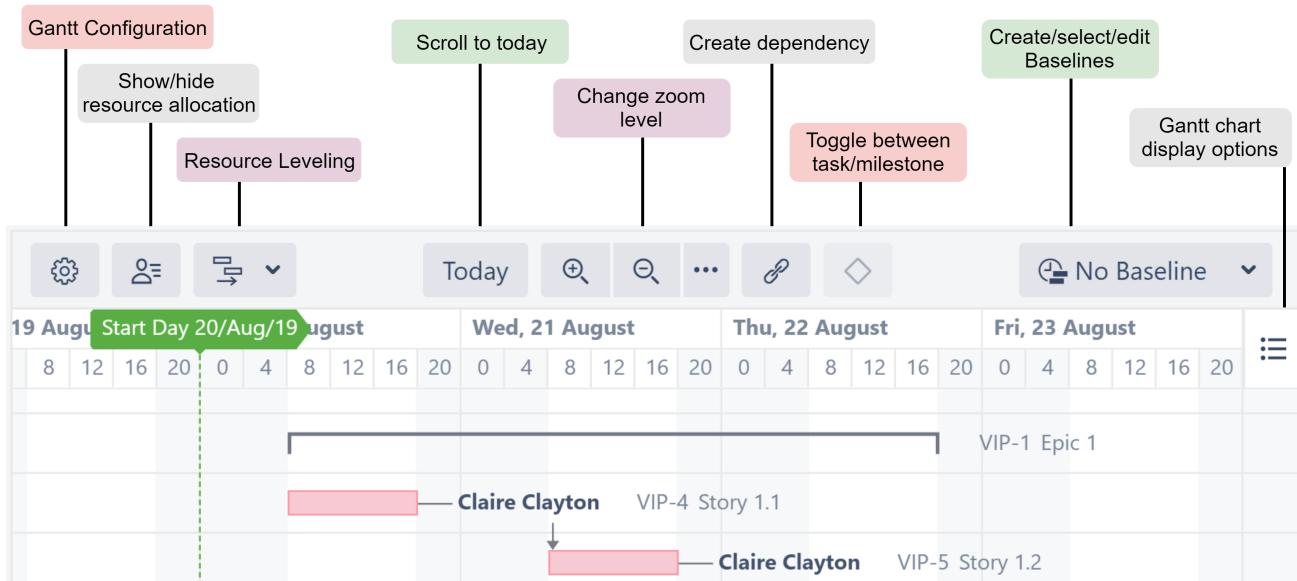
4.2.2 Timeline

Your timeline contains visual representations of tasks, dependencies, progress, milestones and other key dates.

It is also where you will do most of your work. As you saw in Working with Tasks(see page 26), you can adjust tasks and dependencies directly from your timeline.
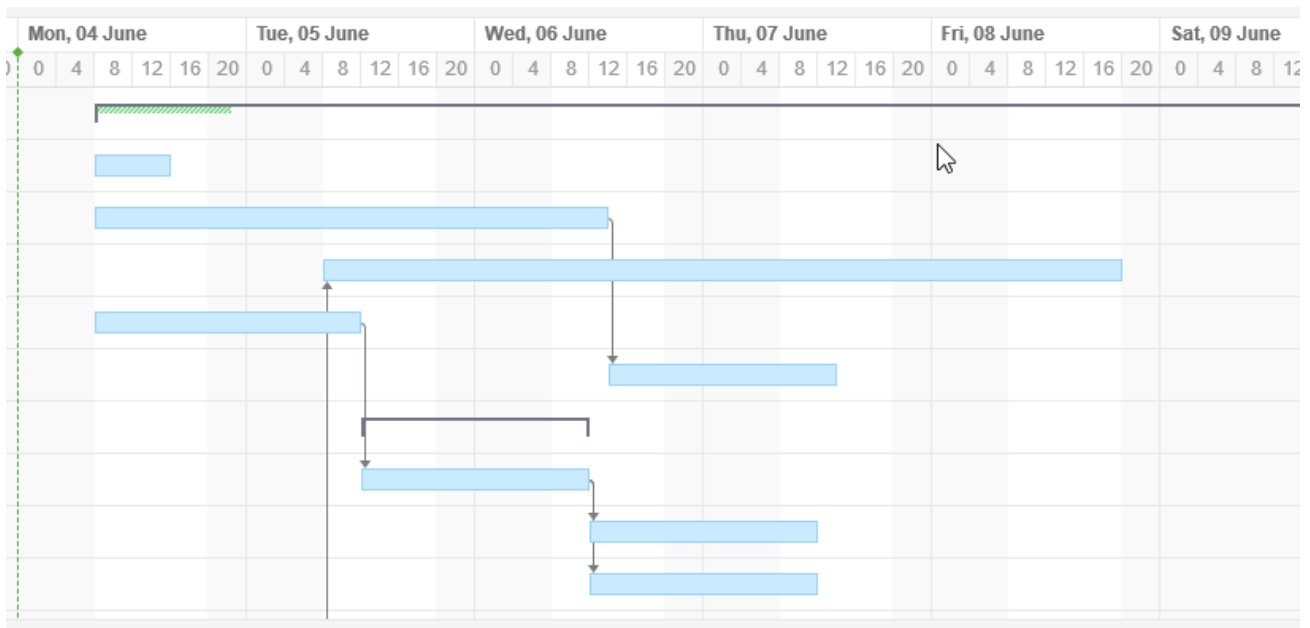
4.2.2.1 Scroll to task

If you move the timeline to a point where the currently-selected task is no longer visible, a **Scroll to task** button will appear, allowing you to quickly return to that task's point in the timeline.
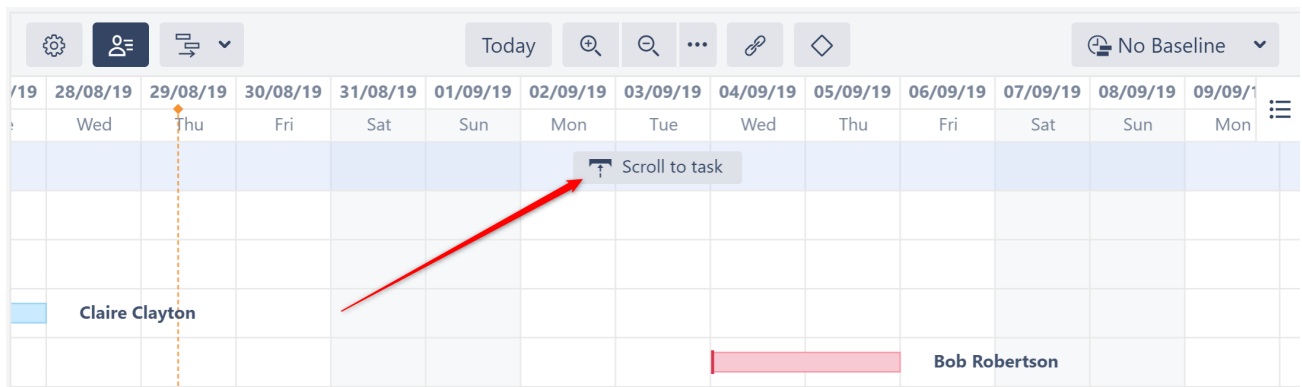
4.2.3 Time Scale

You can quickly navigate or focus your timeline in a variety of ways:

- Zoom in or out to see more or less of your timeline
- Scroll horizontally or vertically
- Hold the **Shift** key and drag the chart with your pointer
- Focus in on the current date with the **Today** button
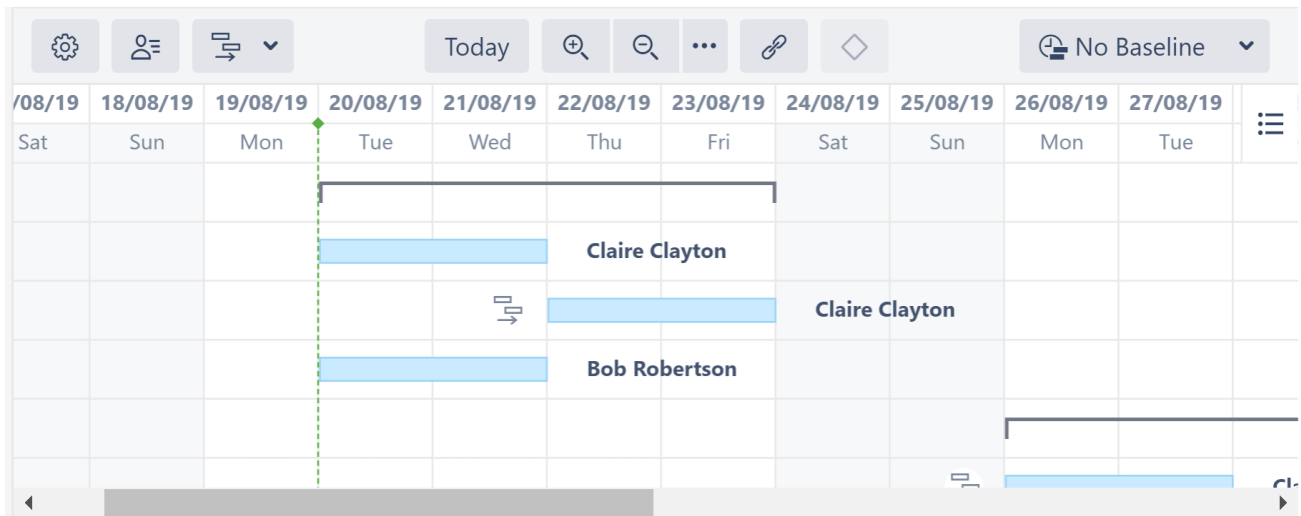
4.2.3.1 Zoom Level

To adjust the zoom level of your chart, use the **+** or **-** magnification buttons in the toolbar. You can also zoom in or out using your mouse wheel, by holding down the **ctrl** button (**cmd** on macs).

To view issues based on a specific time scale, such as weekly or monthly, use the drop-down menu beside the magnification buttons.
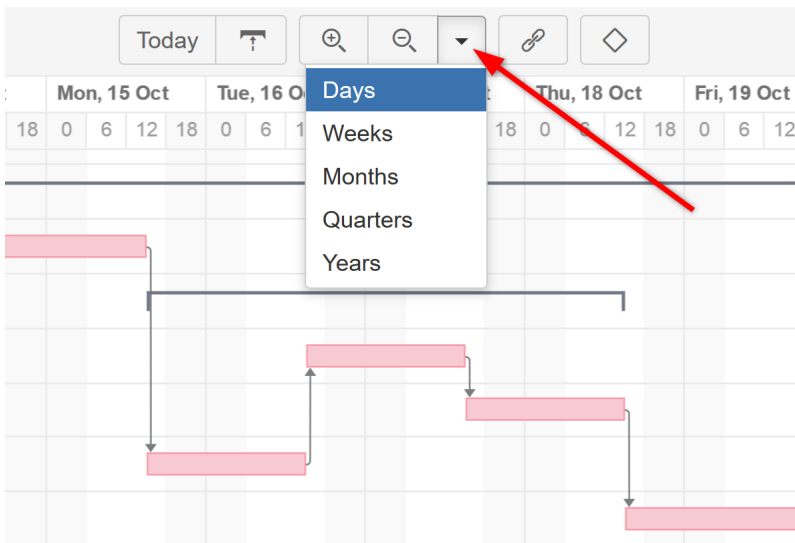
4.2.4 Start Day and Current Date

The project start date is indicated by a green vertical dashed line. The current date/time is indicated by an orange vertical line.

Mousing over the point at the top of either line will display the exact date.
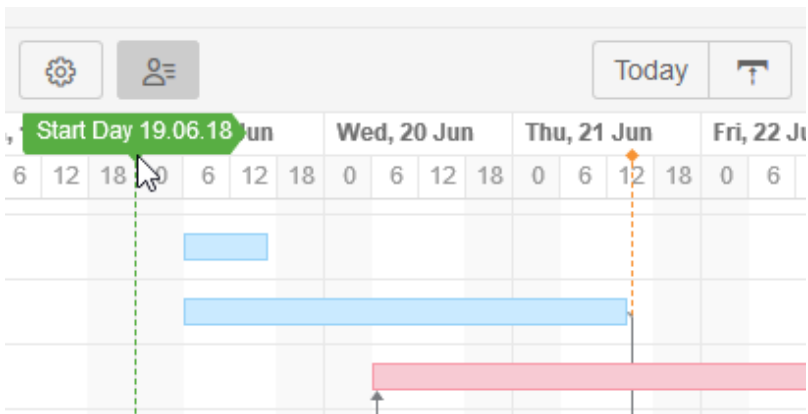
4.2.5 Fix Versions

Fix Version markers display version names. By hovering over a marker, you can also see the release date and project key (if versions are shown for multiple projects).
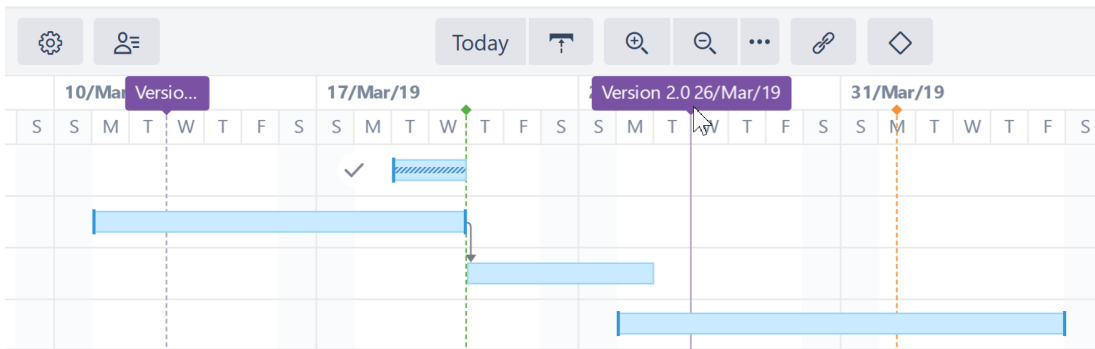
4.2.6 Sprints

If the highlighted task is manually scheduled by sprints(see page 31), sprints from the corresponding board will be displayed at the top of the timeline when the task is selected.
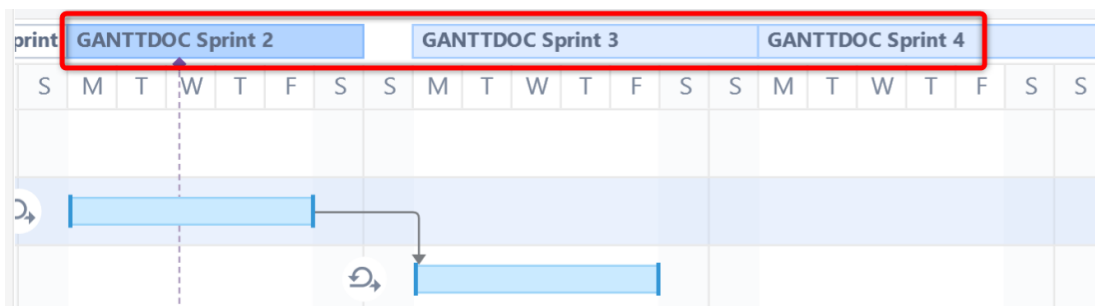
Sprints are visualized based on sprints already defined in a Jira board or anticipated sprints based on your chart settings. (See Gantt Chart Settings(see page 83) for instructions on specifying sprint timelines.)

4.2.7 Task Bars

Structure items are represented in the chart as task bars.

- A task's position on the timeline is based on its dependencies(see page 38), manually-set Start or/and Finish dates(see page 28) or sprint dates(see page 31), and Leveling Delay(see page 63).
- If you have configured Gantt to track the progress of tasks, that will be shown inside the bar. To show/hide progress, use the Display Options menu(see page 47).
- Completed tasks can be marked with a check icon(see page 47). To show or hide Task Indicators, use the Display Options menu(see page 47).
- If a task is a part of the critical path(see page 47), it is shown red. You can show or hide critical path highlighting using the .

4.2.8 Groups

If an element has children in a structure, it can be shown as a Group.

- A group's Start Date and Duration are calculated automatically, based on the Start Date and Duration of the elements it contains.
- If the group is an issue which has its own start/finish dates and estimate values, these are ignored.
- Progress for the group is calculated as an aggregation of its children's progress, and the element's own task progress is ignored as well.
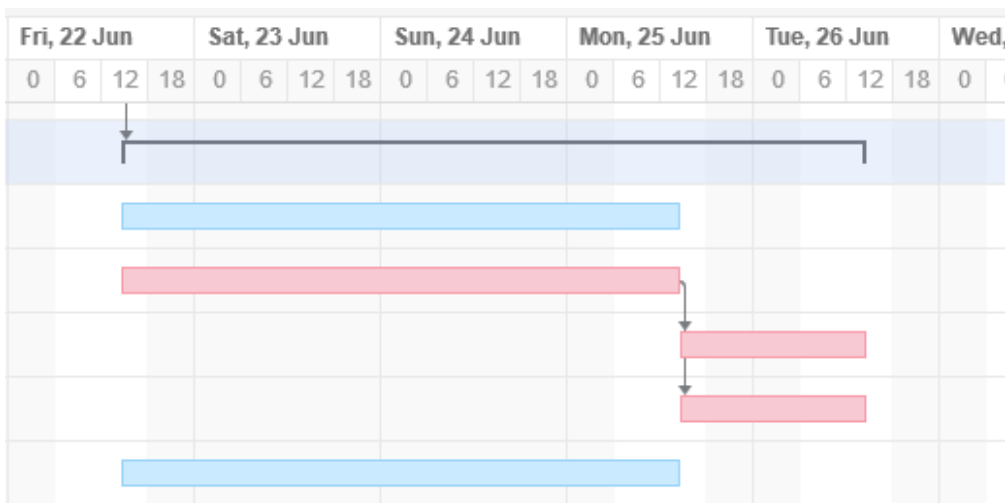
> ⚠️ In order to display child/parent relationships as a group, you first need to enable grouping in Gantt configuration(see page 86).

4.2.9 Dependencies

Dependencies are displayed as arrows between task bars.

- Click the arrow to show the Dependency Properties
- To show/hide dependency arrows, use the Display Options menu(see page 47). This will hide the arrows, but the position of the task bars will be unaffected.

For more information about managing dependencies, see Dependencies(see page 94)*.*

4.2.10 Critical Path

If a task is part of the critical path, it will have a red task bar. A task is considered part of the critical path if delaying that task would extend the project's end date.
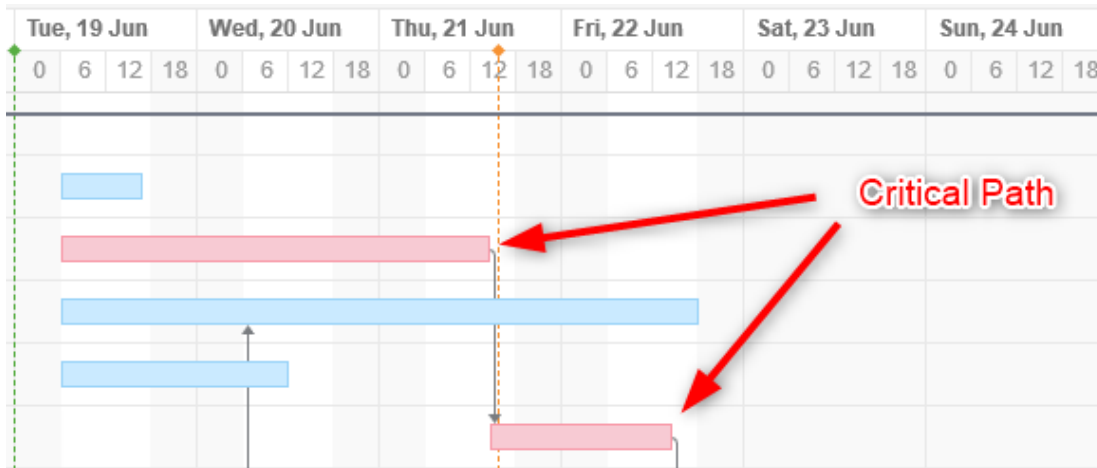
To switch off Critical Path highlighting:

1. Select the Display Options menu
2. Uncheck **Critical Path**

4.2.11 Display Options

The Display Options menu allows you to select what elements should be shown in the chart.
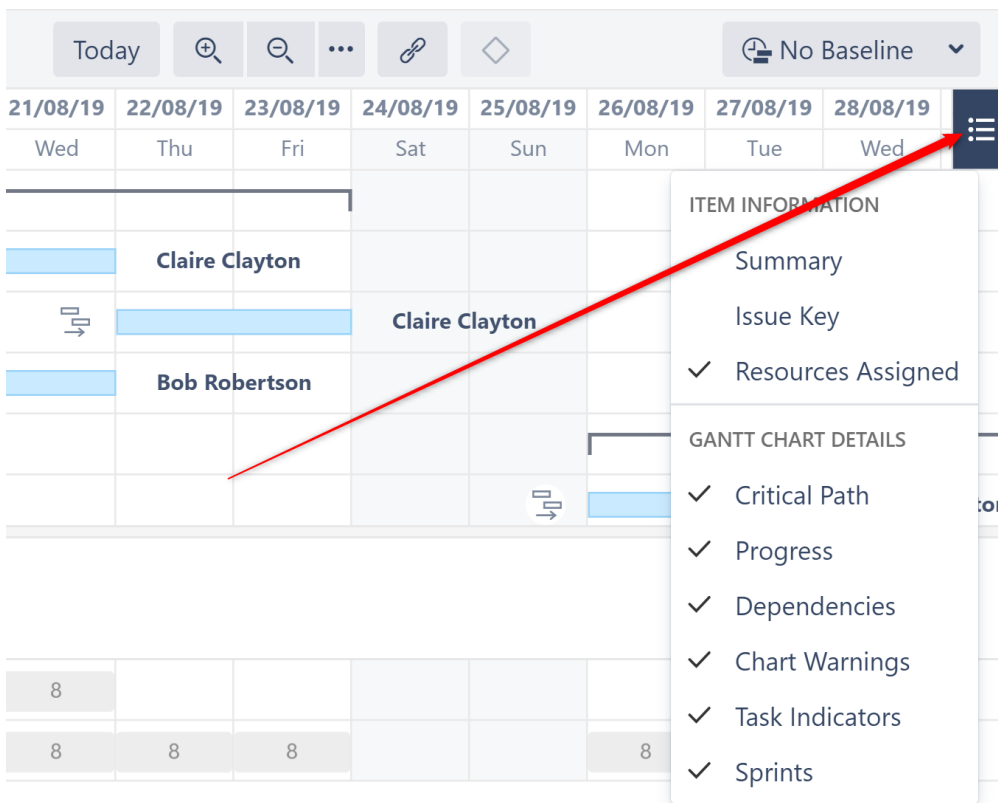
You can show/hide:

- Summary
- Issue Key
- Resources
- Critical Path
- Progress
- Dependencies
- Chart Warnings (such as another time zone or different calendar)
- Task Indicators (see Task Indicators(see page 49))
- Sprints (Note: If this option is switched off, sprints will still be displayed when dragging sprint-scheduled tasks.)

4.2.12 Status Bar

If there are any inconsistencies in the source data (for example, a cycle of dependencies), the Gantt Info link will be shown on the right side of the Structure status bar (next to the Structure Info link 🛈 at the bottom of the screen). Click the link to see details of the inconsistencies.
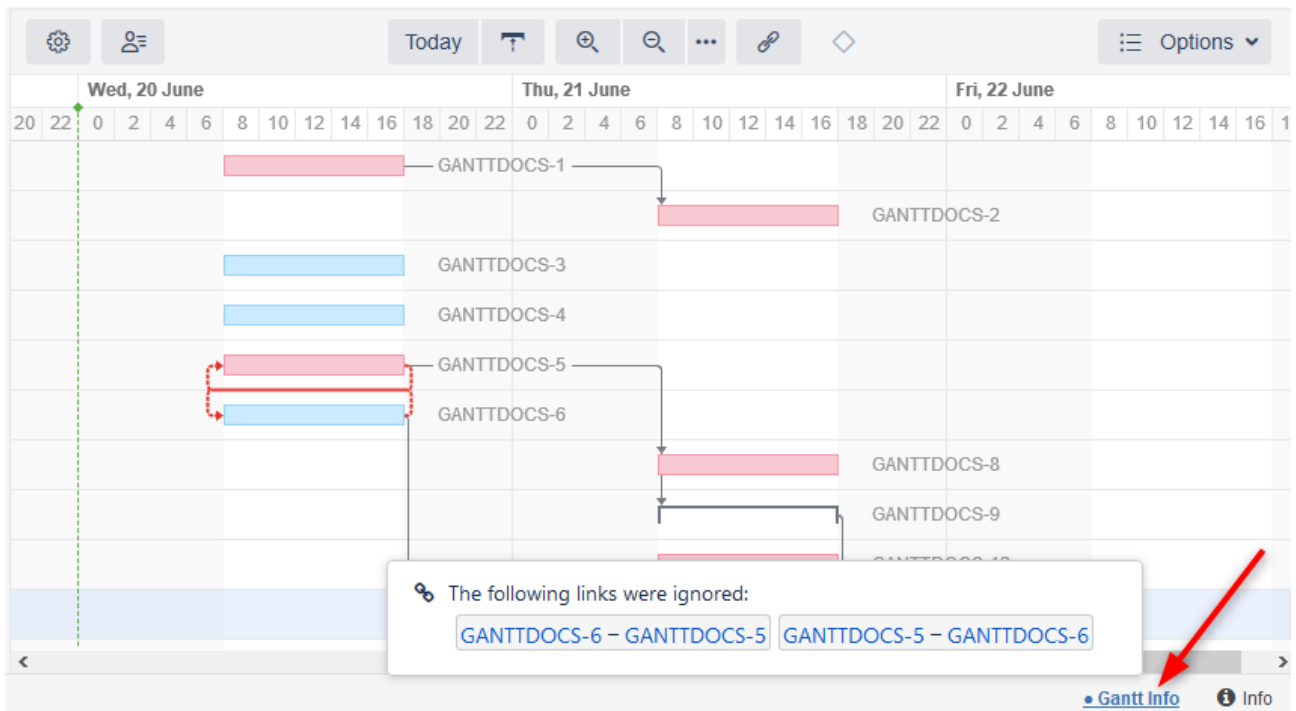
If you do not have permission to edit the Gantt chart, that information will be displayed in the Status Bar as well.

4.2.13 Task Details Panel

Clicking a task bar will display the Task Details panel, which contains information about the task's timeline and resources.

The Task Details panel displays the following details about a task:

- **Start and Finish dates** - These values can be set manually, be based on sprints or be calculated based on the task's duration and dependencies.
- **Sprint** - Shows the sprint the task is assigned to (if available). This can also be used to assign the task to a sprint or reassign it to a new sprint. *Note: Tasks cannot be assigned to or removed from closed sprints.*
- **Work** - The effort required to complete the task. You can enter/update the work estimate directly from here.
- **Duration** - The time it takes to complete the task.
- **Progress** - This can be calculated based on the task's own progress or on its child issues.
- **Lev. Priority** - Weight given to the task for Resource Leveling(see page 63). A higher number equals a higher priority.
- **Delay** - Leveling delay applied to the task by Resource Leveling(see page 63).
- **Scheduling** - Allows you to toggle how tasks are scheduled(see page 27), manually (based on its Start/End date or sprint) or automatically (based on the project start day, duration and dependencies).
- **Slice** - If the task's appearance or behavior is based on a Slice configuration(see page 104), the slice name is listed here.
- **Maximum Units** - Shows the maximum resource capacity which can be used on this task. For example, if a resource has capacity of 5, but the Max Unit setting is 1, only 1/5 of the resource will be used to work on this task. If the Max Unit is set to 5 or more, the entire resource will be used and the task can be done 5 times faster. (See Resources(see page 97) for more information about assigning and tracking resources.)
- **Resources** - Shows the resource assigned to the task, the resource time zone and calendar.

4.2.13.1 Fixed Duration

If **(Fixed duration)** appears to the right of the Duration, this means the task is scheduled based on Start and Finish dates or sprints, not its work estimate. For Fixed Duration tasks, the work is divided evenly across the duration. See Fixed Duration(see page 35) for more information.

4.2.13.2 Icons in the Task Details Panel

The Task Details panel uses icons to help you identify how a task is scheduled.
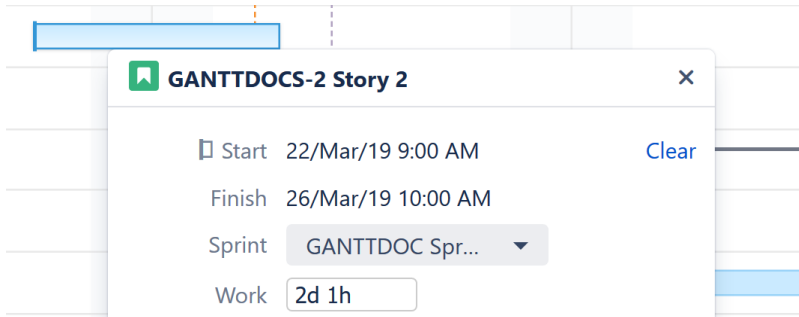
Next to the Start/Finish dates, you may see the following:

    Indicates the Task is manually scheduled based on its Start Date

    Indicates the task is manually scheduled based on its Finish Date

    Indicates the task is manually scheduled based on its sprint

4.2.13.3 Clear Start or Finish Date

If a task is scheduled based on a Start and/or Finish date, a **Clear** link is displayed next to the date.

    Start   22/Mar/19 9:00 AM   Clear

    Finish 29/Mar/19 5:00 PM   Clear

Clicking this link will remove the manual date from Jira and:

- If another date is available (Start or Finish) - the task will be manually scheduled by this date.
- If Use Sprints for Manual Scheduling is selected in the Gantt Configuration and the task is assigned to a sprint - the task will be rescheduled based on the sprint dates/duration.
- If neither of these are available - the task will revert to automatic scheduling.

See Scheduling Precedence(see page 93) for more information.

4.2.14 Task Indicators

Task indicators are icons that can be displayed next to tasks or milestones to indicate how a task is scheduled or that the task is complete.
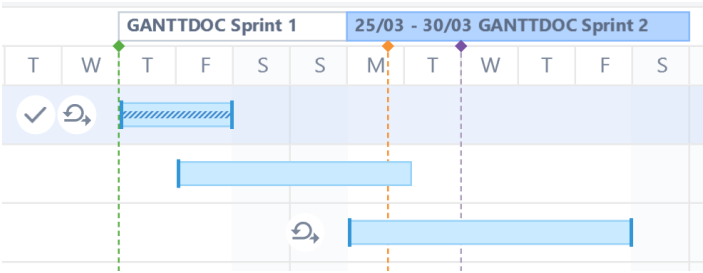
You may see the following indicators on your Gantt Chart:

✓ Indicates the task is complete

↺ Indicates the task's schedule is based on a sprint

⇥ Indicates a leveling delay has been applied to the task by Resource Leveling(see page 63)

Task indicators are visible by default. To hide them from your chart, open the Gantt Chart Display Options menu and uncheck **Task Indicators**.
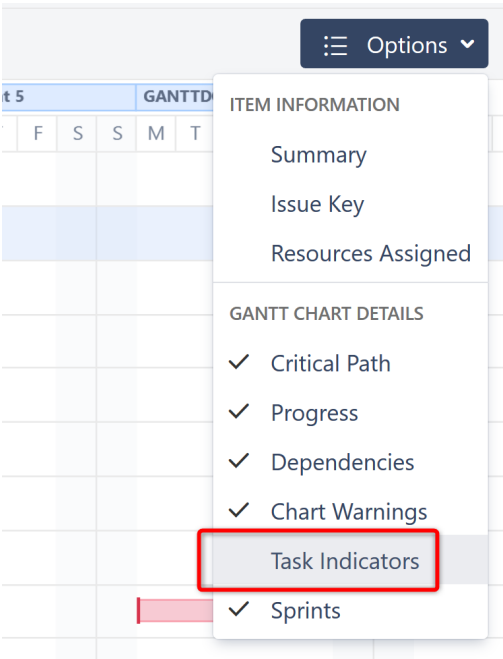
4.2.14.1 Indicators in the Task Details Panel

The Task Details panel also uses icons to help you identify how a task is scheduled.
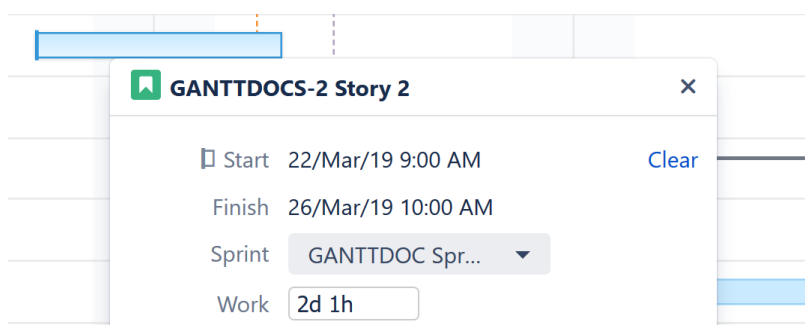
Next to the Start/Finish dates, you may see the following:

📑 Indicates the task is manually scheduled based on its Start Date

📑 Indicates the task is manually scheduled based on its Finish Date

🔄 Indicates the task is manually scheduled based on its sprint

4.3 Resource Management

Structure.Gantt allows you to track resource usage on a project (or multiple projects). If you used the Structure Wizard(see page 19) to create your Gantt chart, you may have already assigned resources for your chart. If not, or if you need to change your resource assignment, see Resource Assignment(see page 97) to assign resources to your tasks.

To view Resource information, click the Show Resources button 👤 or switch Layout to "Gantt + Resources."
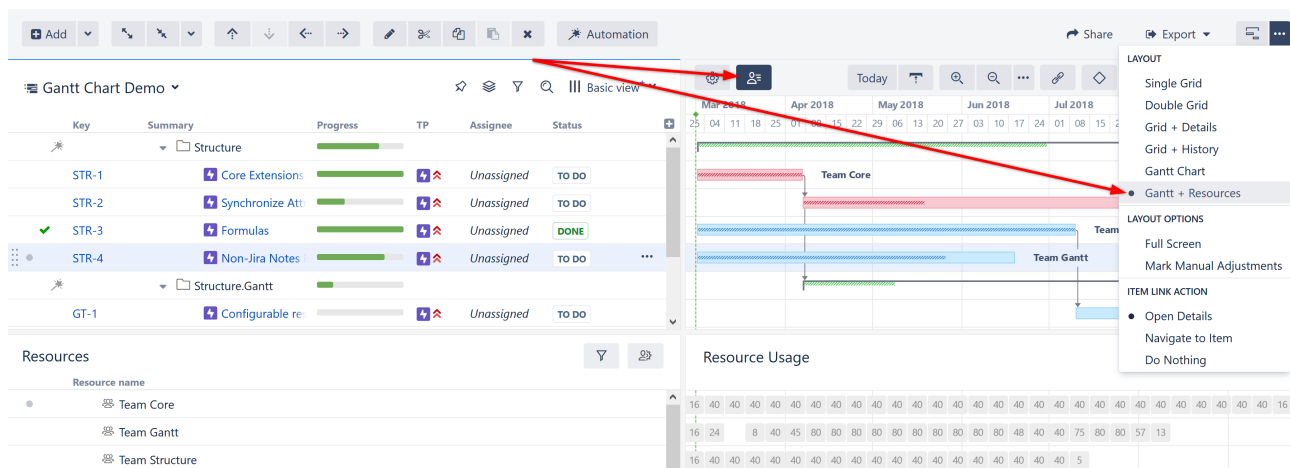
4.3.1 Learn More About Working With Resources

- Resources and Resource Usage(see page 54)
- Resource Settings(see page 54)
- Filter by Resource(see page 54)

-

4.3.2 Resources and Resource Usage

The Resources section of your chart is split into two panels:

- **Resources** - Displays a list of all resources based on the information entered into the field you assigned for resources.
- **Resource Usage** - Displays the work load for each resource at a given time.
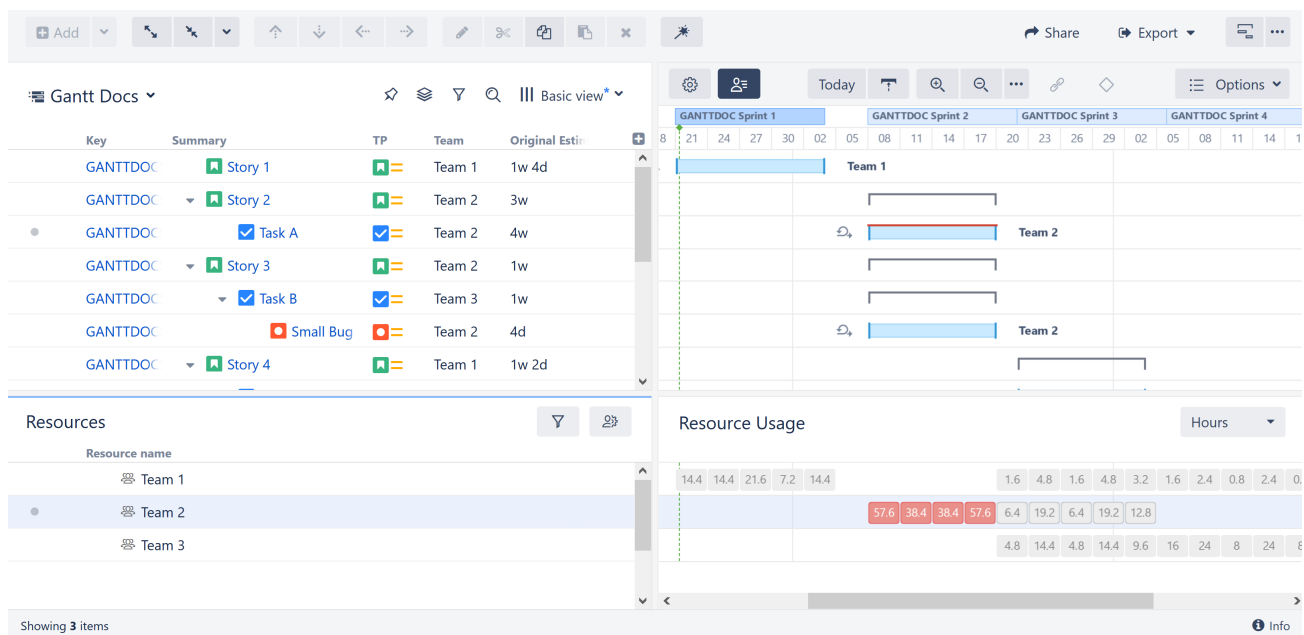
> ✅ You can also display the allocation numbers in the Gantt chart itself. To do that, simply group(see page 55) your tasks by the attribute you used to define the resources. *Note: You cannot group by Formula values.*

4.3.2.1 Overallocation

If there is more work assigned to a resource than the resource can handle, the Usage square for that block of time will be highlighted (See Team 2's usage above). This allows you to quickly identify places where you may need to revisit your timeline or work distribution.

To resolve the overallocation, manually adjust the tasks or their resources, or use the Resource Leveling (see page 63)tool.

4.3.2.2 Resource Usage Timeline

The Resource Usage timeline aligns with the Gantt chart timeline above and adapts to the zoom level selected in the Gantt toolbar. Zoom in or zoom out to see details of allocation within a specific period.

To learn more about assigning resources to tasks, see Resource Assignment.(see page 97)

4.3.2.3 Hours vs Percentage

Resource usage can be displayed in one of two ways:

- the number of hours assigned to a resource for a set period of time
- the percentage of a resource's availability (as determined in Resource Settings(see page 56)) that is being used at a given time

To change how resource usage is displayed, simply click on the drop-down menu in the upper-right corner of the Resource Usage panel.
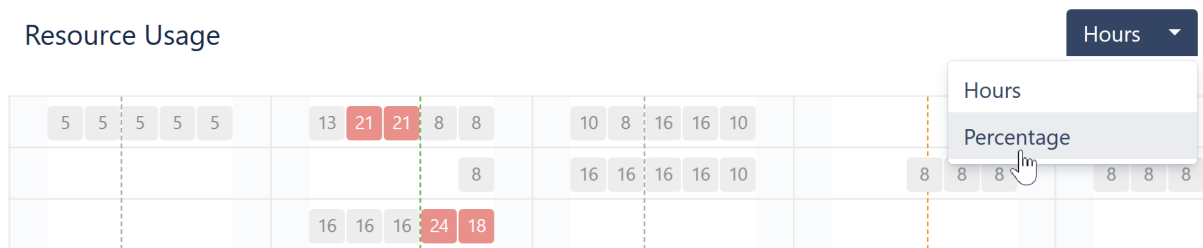
> ⚠ Depending on your zoom level and work schedule, chart cells may appear the same but contain different amounts of work. For example, with a 6-hour zoom, you will see two cells for a typical work day (6am-12pm and 12pm-6pm), but if your work day is from 9am-5pm, the first cell will only represent 3 hours of work, while the second represents 5 hours. This is perfectly normal and does not impact the percentage of availability in any way.

4.3.3 Resource Settings

Each resource has a number of parameters that are taken into account when calculating task start and finish dates, duration and resource allocation. The default values for these parameters are set in Gantt configuration(see page 86). You can override them for a specific resource by selecting the resource in the resource panel and clicking the Resource Settings button.
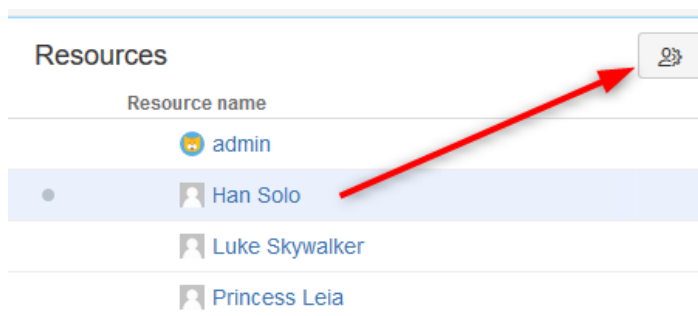
You can adjust the following settings:

- **Units** - Determines how much work this resource can do in one hour. By default, it is set to 1, which corresponds to one person. If your resource is a team of 5, you should set this value to 5. A person who only works one day a week, using Standard work calendar, would have a value of 0.2.
- **Time Zone** - Defines the time zone of the resource.
- **Calendar** - Defines working and non-working times for the resource in the resource's time zone.

- **Availability** - Defines the percentage of the resource's capacity available during a specific period. This field allows you to factor in things such as vacation days or periods of part-time work.

All these parameters, as well as a task's Maximum Units, are taken into account when calculating the duration of a task. For example, a resource with 2 units will do the task twice as fast as the resource with 1 unit, as long as the task has Maximum Units set to 2 or higher.

4.3.4 Filter by Resource

To view only issues assigned to a specific resource, highlight the resource's name in the Resources panel and click the Filter button.

When you filter by resource:

- Issues assigned to that resource will be visible in the WBS and Gantt chart
- Issues above those in the hierarchy will be visible but grayed out
- All other issues will be hidden

4.3.5 Navigating to a Resource from the Gantt Chart

You can quickly navigate to a resource in the Resources panel (and open the Resources panel itself, if it's not yet open) by clicking on the resource name displayed in the Task Info Pop-up.
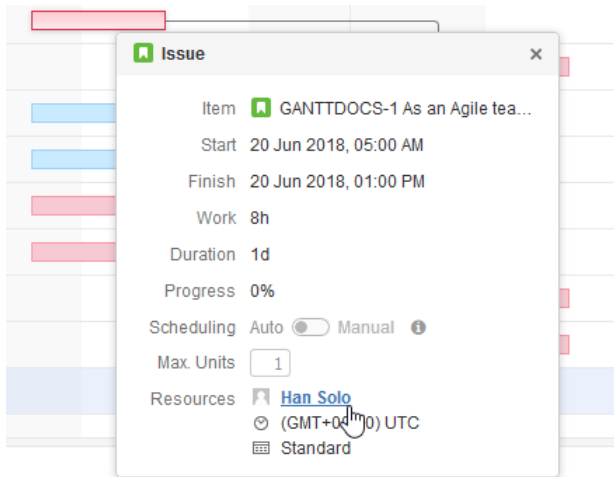
4.4 Baselines

Baselines allow you to compare the positions of tasks, groups and milestones in the timeline today vs. sometime in the past. This means you can track schedule changes over time, or compare two schedules for the same project (ex. manager's schedule vs. developer team's).

By creating a snapshot of the Gantt chart at a particular moment in time, and then showing it alongside the current chart, you can see at a glance which tasks are behind or ahead of schedule - and how that impacts the project's timeline.
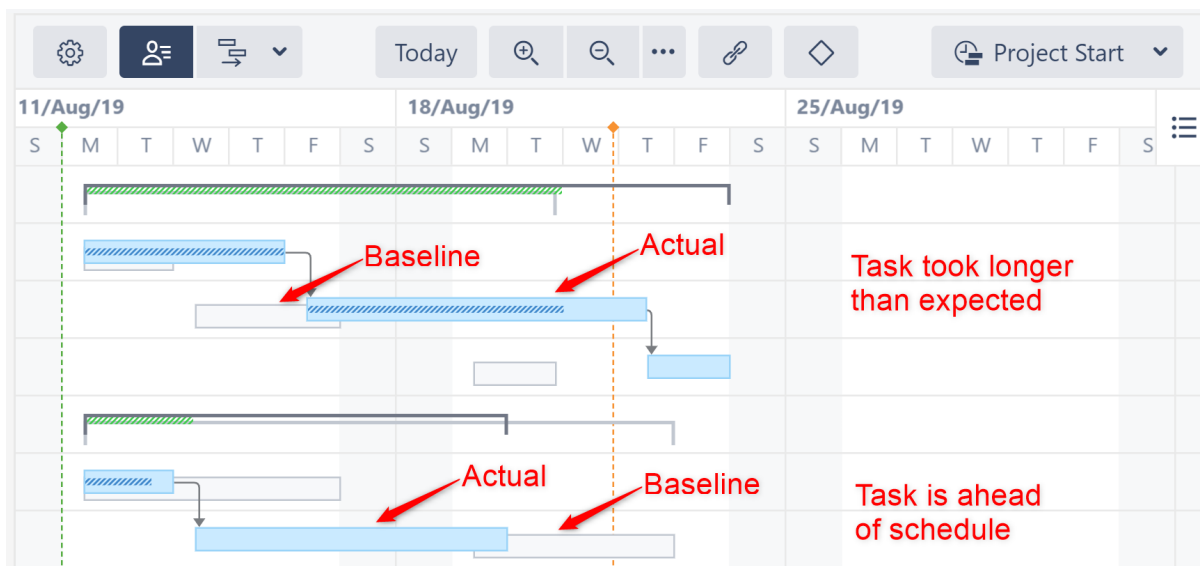
The grayed-out tasks are the original locations from our baseline, while the full-color tasks are their positions today. In this example, the top set of tasks are behind schedule, while the bottom tasks are ahead of schedule.

4.4.1 Creating a Baseline

To create a new baseline, open the Baseline menu in the Structure.Gantt toolbar and select **Create New**.
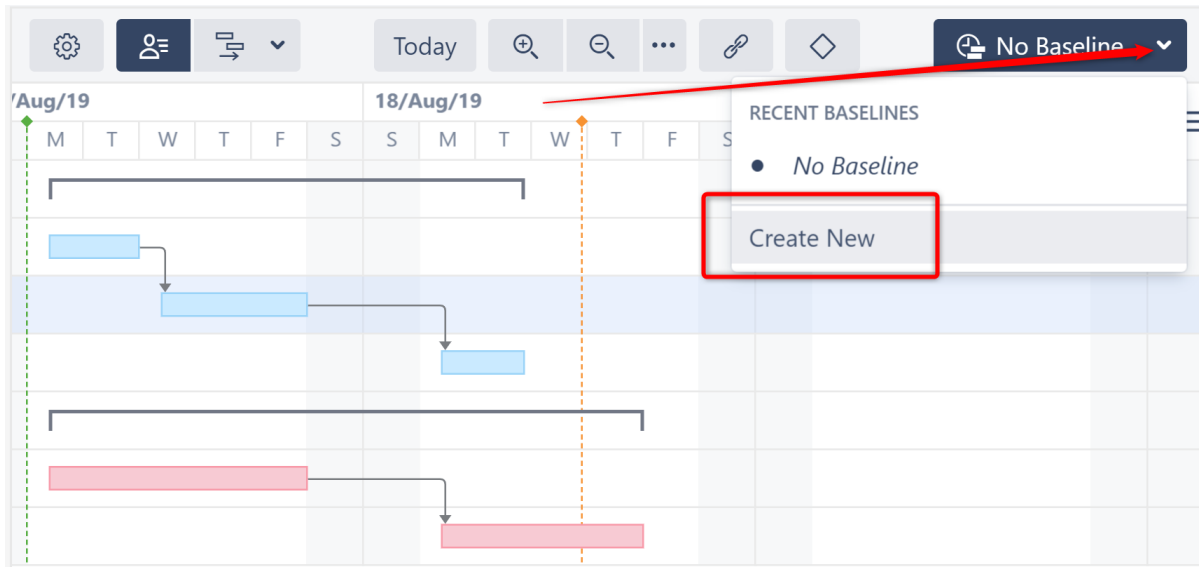
Give the baseline a name and click **Create**.

> ⓘ In order to create a baseline, you must be the structure owner or have Edit permissions[10] for the structure.

> ⓘ Baseline data is stored in Structure.Gantt storage. It has no effect on Jira.

4.4.2 Comparing Current Chart to a Baseline

To compare the current chart to a baseline, open the Baseline menu and select the baseline you wish to use.

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10 https://wiki.almworks.com/display/structure/Structure+Permissions
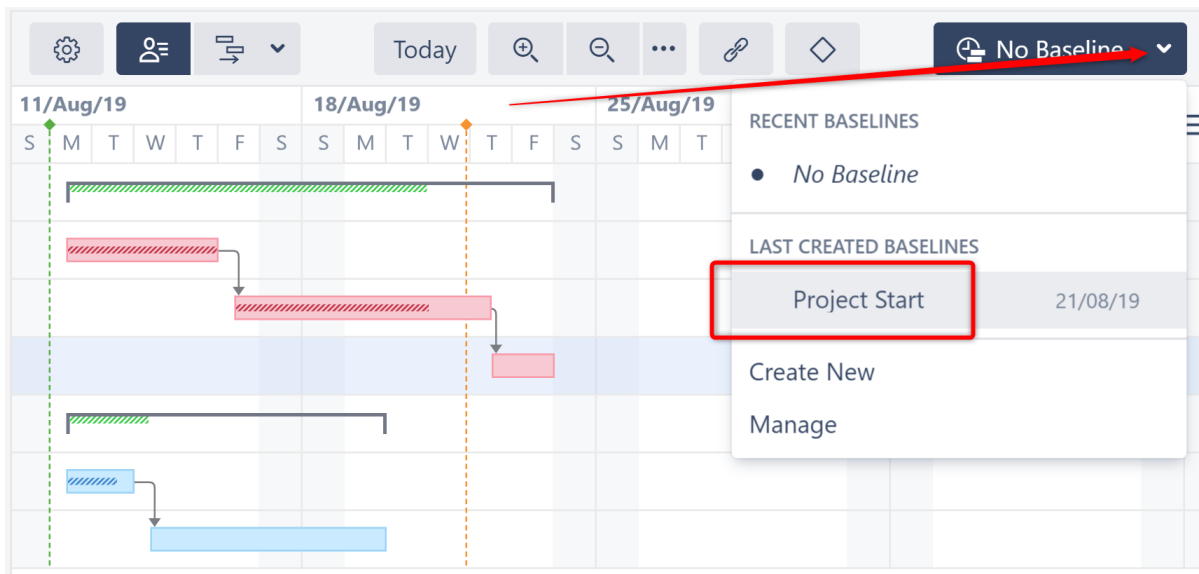
4.4.3 Baseline Offset

When viewing a chart with a baseline, hover over any item to see how far ahead or behind the baseline schedule the task currently is.
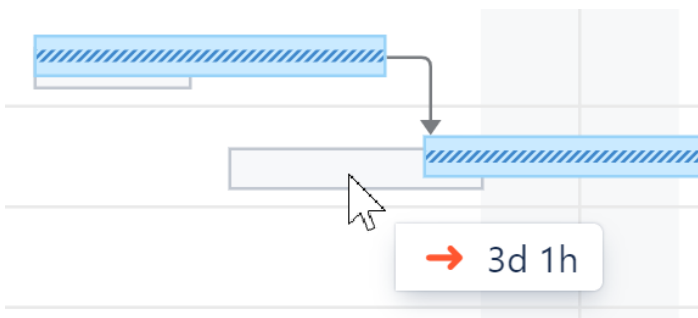
4.4.4 Hiding Baselines

When a baseline is applied, it's name is displayed in the Baseline menu.
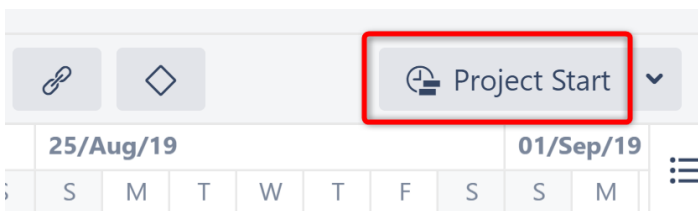
To hide the baseline (so you just see the current chart), open the Baseline menu and click **No Baseline**.
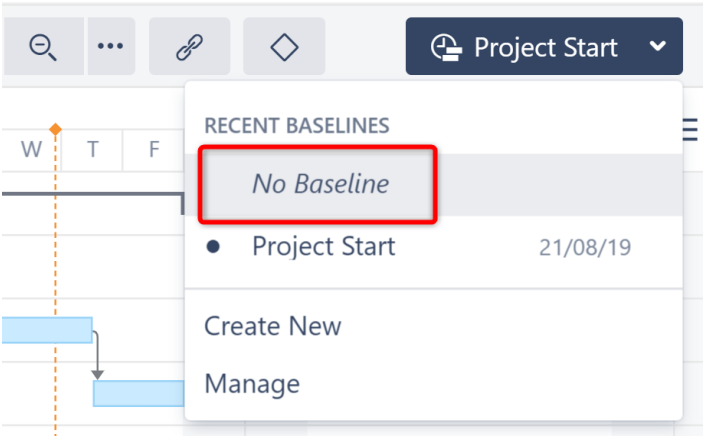
4.4.5 Managing Baselines

To manage your saved baselines, open the Baseline menu and select **Manage**.
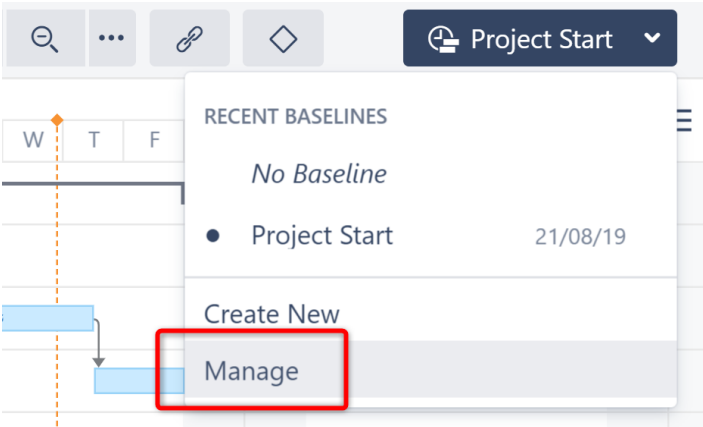
On the Manage Baselines screen, you will see a list of saved baselines, when they were created and who created them.

You can:

- Edit the baseline's name - click the name to switch to editing mode
- Delete the baseline - click the trash icon

> ⓘ Baselines can only be renamed or deleted by the baseline's creator, structure owner or admins.

4.4.6 Gantt Gadget

Baselines can be included in Dashboard gadget(see page 72)s and Confluence gadgets(see page 75).

To enable baselines, simply select the baseline you want to include in the gadget settings dialogue.

4.4.7 Exporting Baselines

Baselines can also be included when exporting a Gantt chart.
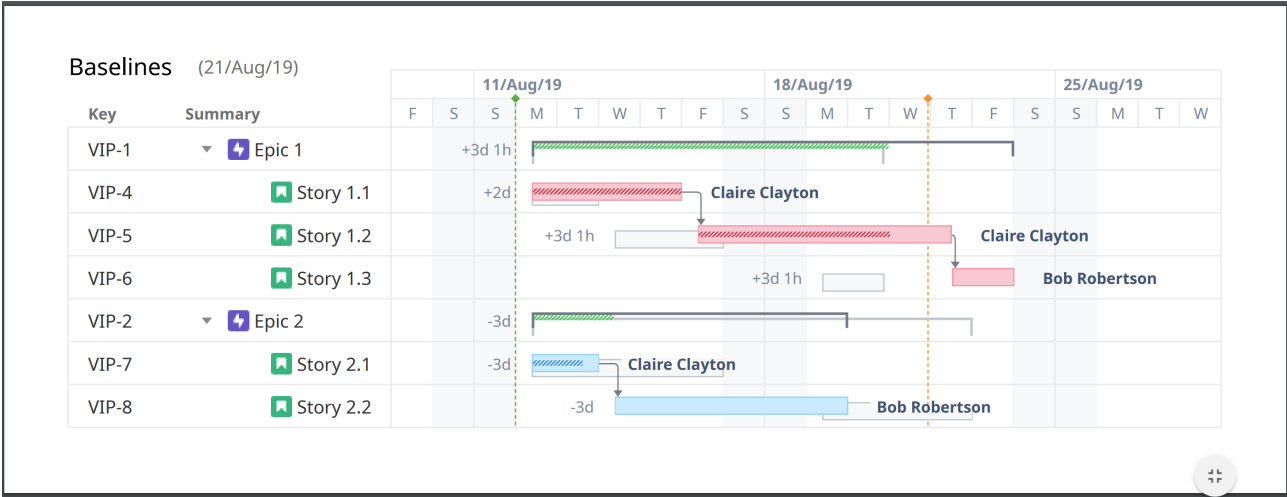
When including baselines in an export:

- Make sure the baseline you want to include is visible in the chart before selecting **Export Gantt Chart**
- Check the **Baseline** option in the Gantt Chart Details section of the Export dialogue
- Select whether or not **Baseline delays** should be displayed

4.5 Resource Leveling

Resource Leveling enables you to resolve all overallocations with the push of a button.
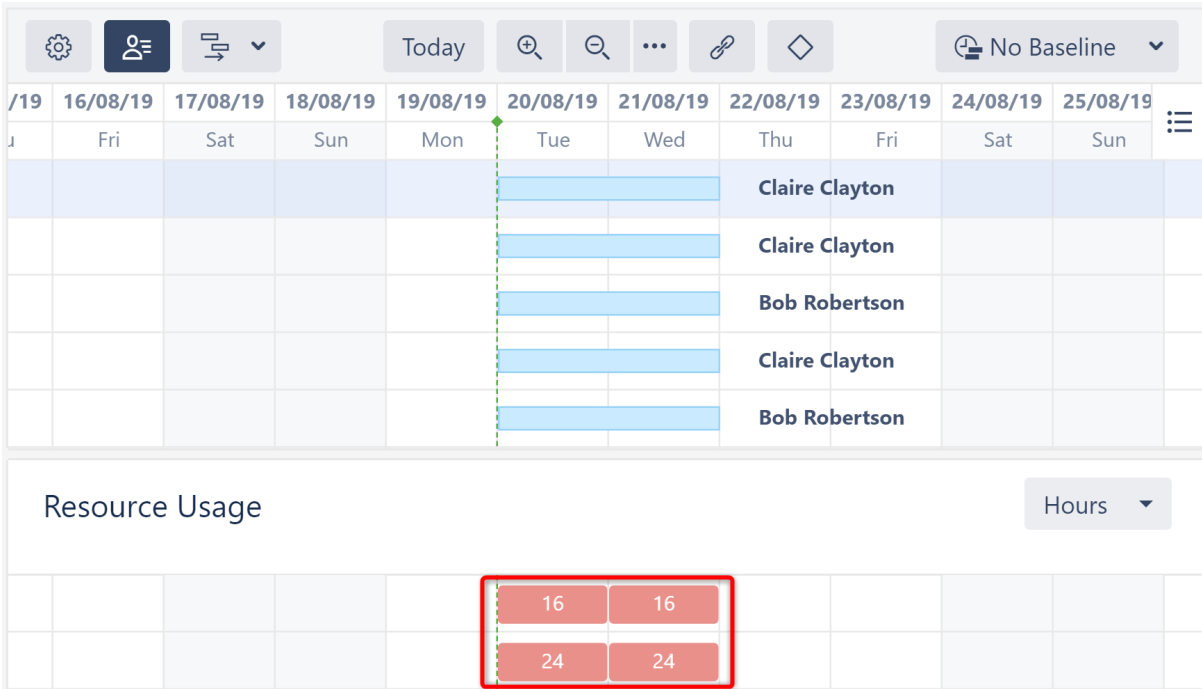
Once enabled, Structure.Gantt will identify instances of overallocation and automatically delay certain tasks to give you a realistic picture of when they can be completed.
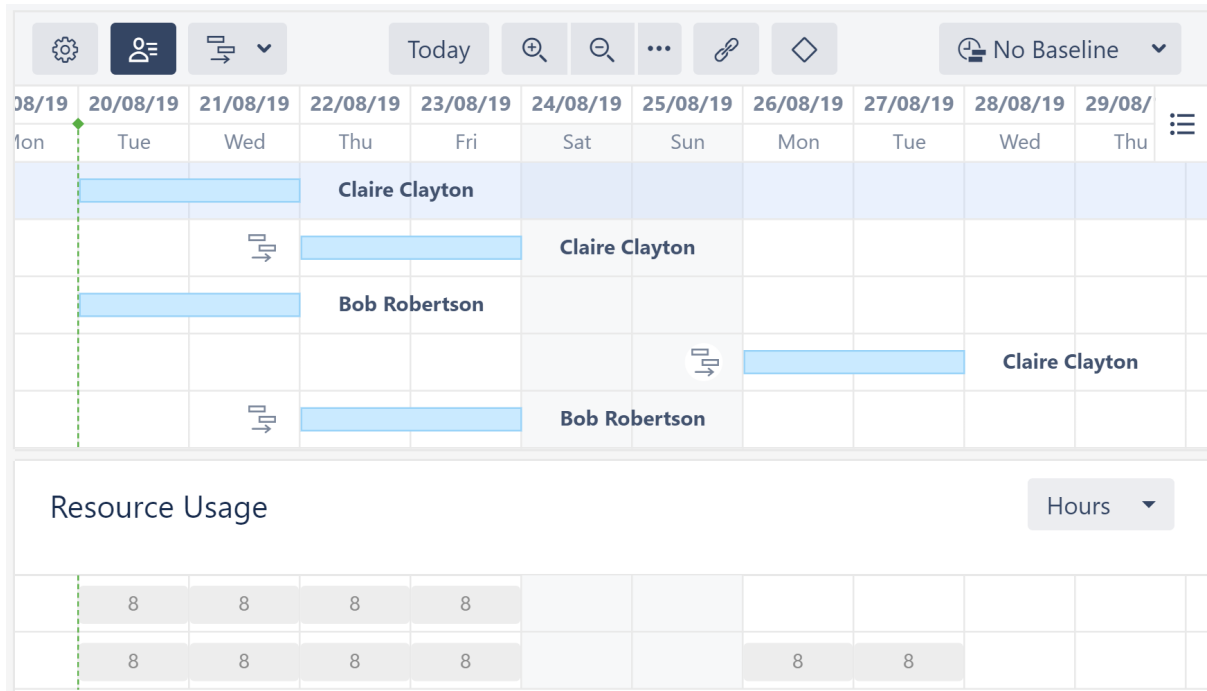
In the above example, Story 1.2, Story 2.1 and Story 2.2 were delayed to solve the overallocation seen in the first screenshot.

> ⚠️ Leveling is a resource-intensive operation. It may take several seconds to dozens of minutes to complete, depending on a variety of factors, including the number of items in a structure, number of resources, number of dependencies, etc.

4.5.1 Starting Resource Leveling

To start Resource Leveling, open the Resource Leveling menu in the Structure.Gantt toolbar and select **Run Leveling**.
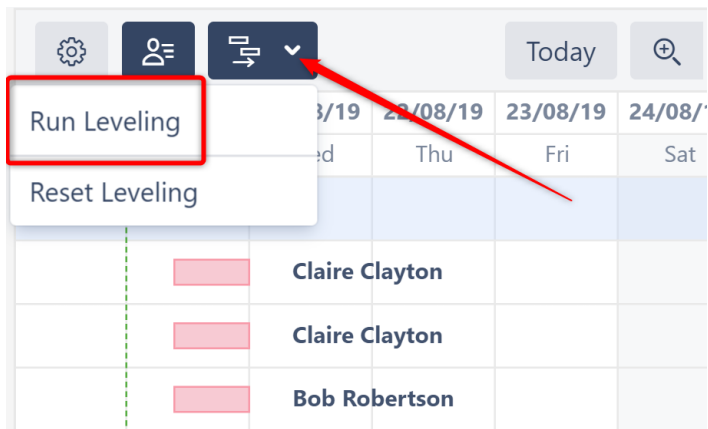
You can then select which resource(s) Resource Leveling should be applied to (or select **All Resources**) and choose the leveling option you want to apply.

The following leveling options are available:

- **Level manually scheduled tasks** - By default, manually scheduled tasks will not be adjusted by resource leveling. To include them, check this option.
- **Level tasks with progress** - By default, tasks considered in progress (based on the Progress Calculation settings in the Gantt Configuration) are not changed by resource leveling. If this option is selected, these tasks may be moved by leveling if their original estimate results in resource overallocation.
- **Level completed tasks** - If selected, resolved tasks may be moved if they they are part of resource overallocation.

When you click **Run**, Structure.Gantt will review your allocation chart to identify every instance of overallocation.

When it identifies that a resource is overallocated, it will delay some of the tasks to the future, based on a variety of factors, including but not limited to:

- **Leveling Priority** - If this Gantt attribute is set, tasks with a higher assigned priority will be scheduled earlier in the timeline. See Leveling Priority(see page 100).
- **Dependencies** - Leveling respects dependencies and avoids any adjustments that would result in dependency conflicts.
- **Start time** - Tasks with an earlier start date/time will generally be scheduled sooner to limit downtime.
- **Task length** - Longer tasks receive a higher priority.
- **Manual schedules** - By default, manually-scheduled tasks are not affected by Resource Leveling. If the **Level Manually Scheduled Tasks** is selected, they will be treated as any other task.

4.5.1.1 Additional Guidelines

- Only one leveling operation can be run per structure at a given time.
- Resource Leveling delays items in the Gantt chart only. It DOES NOT reschedule issues in Jira.

- If a task's scheduling, links or dependencies are changed in the Gantt chart after leveling has been applied, it's leveling delay will be removed. Changes made in Structure or Jira will not affect the leveling delay.

4.5.2 Removing Leveling Delays

To remove leveling delays and return tasks to their original schedule, open the Resource Leveling menu and select **Reset Leveling**.
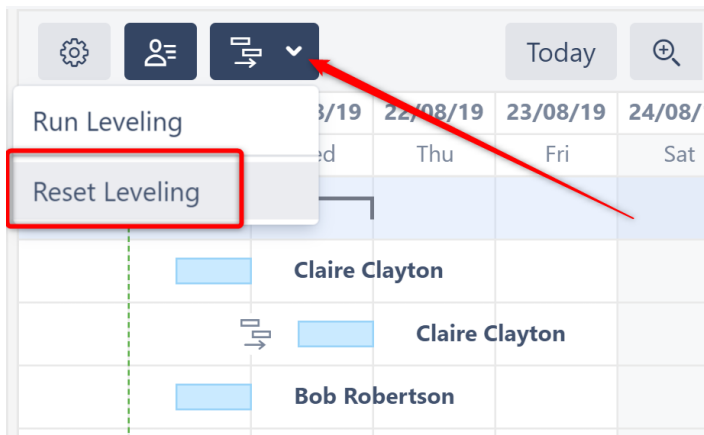
You can select which resources to remove leveling for, or click **All Resources** to reset all leveling.
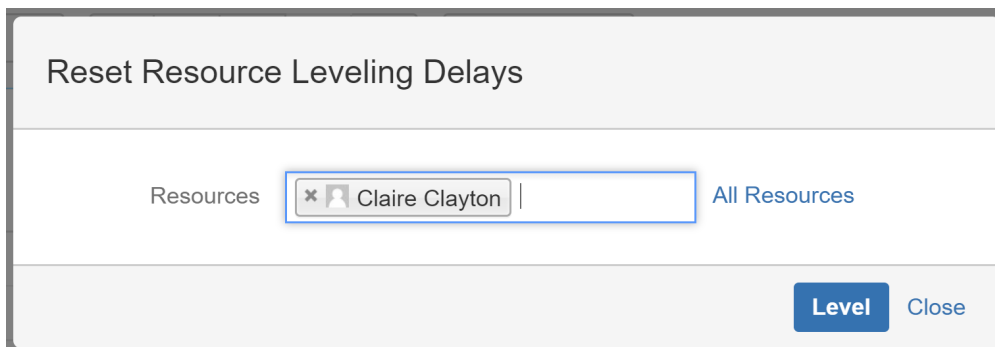
4.5.3 Leveling Priority and Delay

Leveling Priority allows you to give a higher weight to certain tasks, making them less likely to be moved when Resource Leveling is run. Leveling Priority can be assigned through Gantt configuration | Resources(see page 97), or adjusted for individual tasks via the Task Details Panel(see page 50).

When Resource Leveling is run, Structure.Gantt shifts tasks to the earliest-possible point on the timeline, based on resource availability, leveling priority, and dependencies. The amount of time between the original schedule and the new schedule is called the **Leveling Delay**. You can view a task's Leveling Delay in the Task Details panel(see page 50).

Changes made to the Leveling Priority are not applied until after the current leveling is reset and a new leveling operation is run.

> (i) Leveling Delay values are stored in Structure.Gantt storage. They have no effect on Jira.

4.5.4 Stop Leveling

On larger structures, the leveling process can take dozens of minutes. It is possible to stop an in-progress leveling operation, when necessary. To do so, find and click the **Leveling Progress** indicator below the Gantt Chart. In the progress pop-up, click **Stop Leveling**.

> (i) Only the user who initiated the leveling process or a Jira admin can stop an in-progress leveling operation.

4.6 Exporting to a Printable File

It is possible to export a Gantt chart into a PDF or SVG file to view offline, print or share with someone else.

4.6.1 Configuring Hierarchy Level and Zoom

Certain parameters of your Gantt chart export are based on the layout of the structure and chart on your screen, including the hierarchy level[11] and zoom level. You should select the desired hierarchy and zoom levels before exporting your Gantt chart.

To configure hierarchy level, you may expand or collapse items manually or use Structure's expand/collapse menu. There are three toolbar buttons you may find useful: **Expand all items**, **Collapse all items** and **Expand items for specified level**.
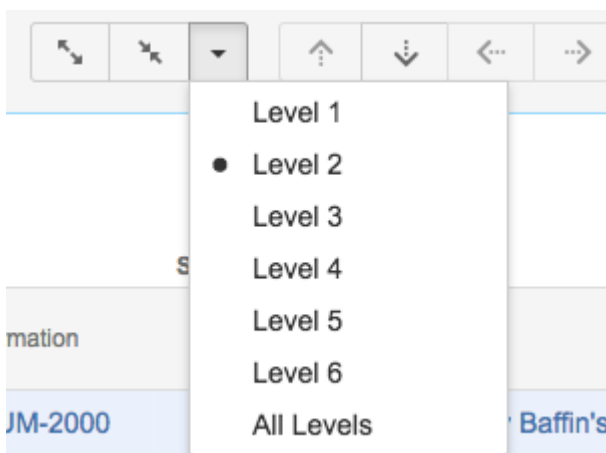
To configure the chart's zoom level, use the Gantt chart zoom toolbar buttons. You can zoom in, zoom out or select a specific unit for your time scale.
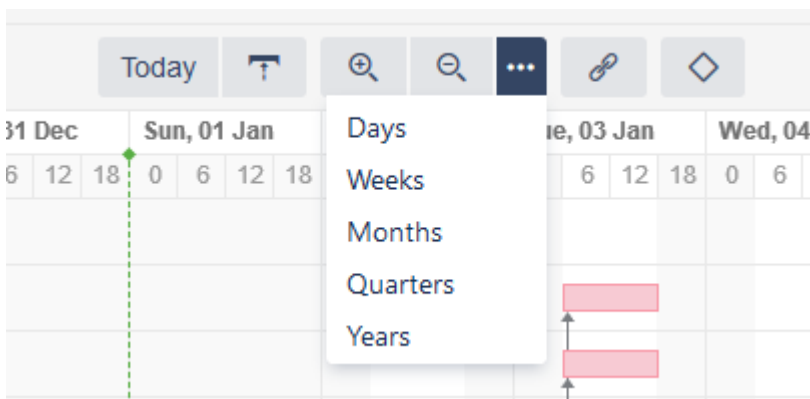
4.6.2 Export Gantt Chart

Once you have set the desired hierarchy and zoom levels, click **Export** | **Export Gantt Chart**.

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11 https://wiki.almworks.com/display/structure/Navigating+Between+Items
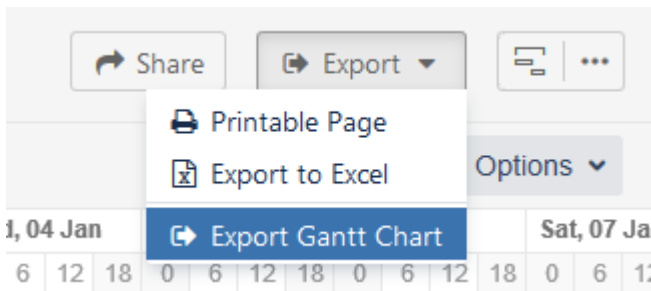
On the Export Gantt Chart window, you will be given a number of options for customizing the settings and appearance of your output file.

- **Output format** - Select the format you want your chart saved in, either PDF (default) or SVG. PDF format is useful for exporting large charts that you want to print, while SVG is ideal for sharing or embedding into other graphical materials.
- **Color Scheme** - Select the color scheme to use for the exported chart: Standard or Black and White (optimized for black and white printing).
- **Time Range** - By default, the entire timeline (Whole Chart) is included in your export, from your earliest to latest tasks. To export only a portion of the timeline, select **Custom Dates** and enter a date rage to include. You can also specify just the Start Date to include only items starting on or after that date.

- **Item information** and **Gantt Chart Details** - These allow you to choose which details will be shown on your exported chart.
- **WBS** - Check this box to include the work breakdown structure (including the Key and Summary columns) alongside the chart.
- **Width** - This allow you to specify the width (in pixels) of the included work breakdown structure.

Once you have finished with chart configurations, press **Export** to create and download your export file.

4.6.3 Exporting

Depending on the size of the chart, selected output format and your network bandwidth, export may take several seconds or (in some cases) even minutes. A progress dialog will keep you informed about the status of your export. As soon as the export is completed, download should begin automatically.

Depending on your browser settings, you might be asked to select a destination folder for the downloaded file or choose an application to open the file.

> ⓘ   If you are not prompted for a download location, check your browser's default download location for the exported chart. The download file should have the same name as the exported structure.

> ⚠   Fonts in the exported PDF may be different than those that are used in the web version of the Structure.Gantt chart.

4.6.4 Printing Large Charts

Sometimes you may wish to print a large chart to place at a desk or on a wall. This is possible with the help of Adobe Acrobat Reader DC[12].

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12 https://acrobat.adobe.com/us/en/acrobat/pdf-reader.html
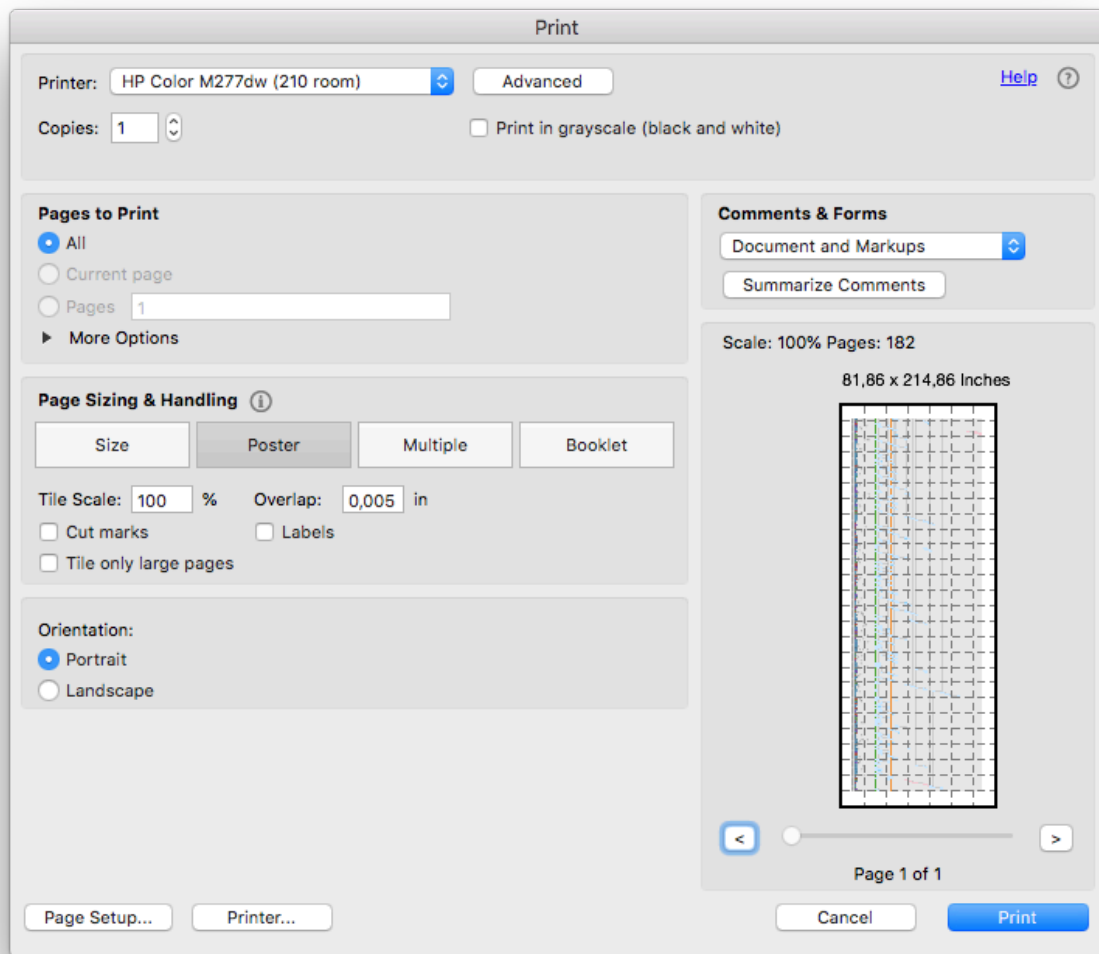
Acrobat Reader allows you to print any large picture as a Poster, i.e. it will automatically split it into a number of pages that can be combined later into a full-size picture. To do so, open your PDF file in the Acrobat Reader and select **File** | **Print** to reveal the printing dialog. Under Page Sizing & Handling, select **Poster**. You can configure additional options, such as tile scaling and overlapping, to suit your needs. For best quality, we recommend setting Tile Scale to "100%".

> ⚠ Adobe limits PDF pages to 200 inches (~5m) and will cut extra graphics if your exported chart exceeds this limit.

4.7 Using Gadgets

Any Gantt chart can be placed onto a Jira Dashboard or embedded into a Confluence page as a read-only gadget.

- Jira Dashboard Gadget

- Confluence Gadget(see page 75)

> ⚠️ Important!
> The Structure.Gantt gadget has limited functionality and is mostly dedicated to viewing. It is not possible to alter a schedule or see task details using the gadget (users should continue to use Jira or Structure.Gantt for these tasks). Additionally, if your gadget is not refreshing or is not refreshing frequently enough, make sure you have properly configured your gadget's refresh interval. See Jira Dashboard Gadget(see page 72) for more details.

4.7.1 Jira Dashboard Gadget

To add the Structure.Gantt gadget to a Jira Dashboard, click **Dashboards** in the top menu and select the desired dashboard, or click **Manage dashboards** to create a new one (see Atlassian documentation[13] for more details on how to manage dashboards).
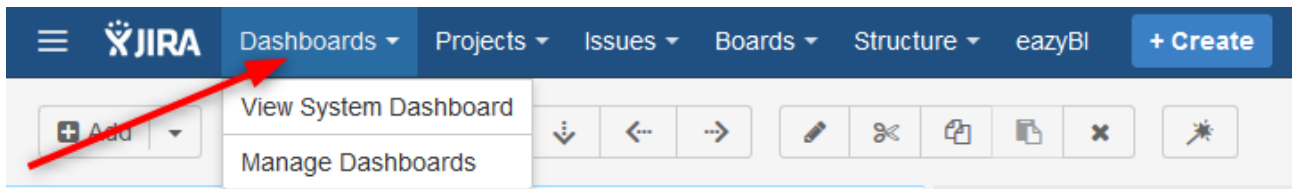
Click the **Add gadget** button to display the "Add a gadget" dialog.
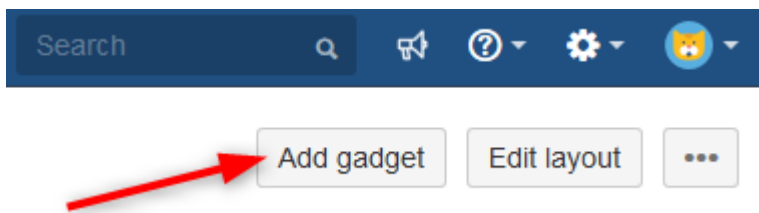
Click **Load all gadgets** to display a list of all available gadgets.
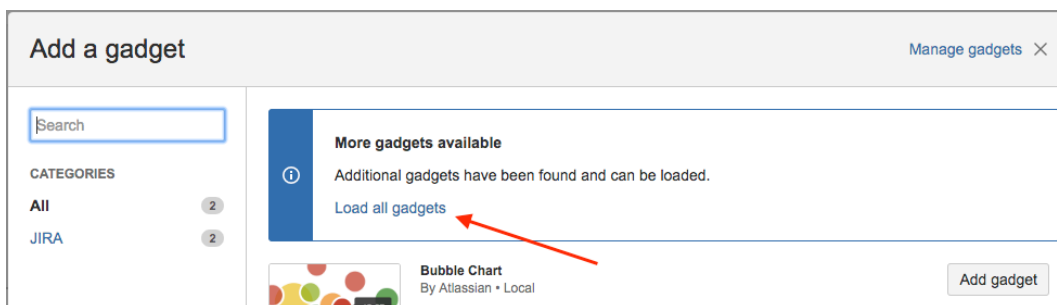
Type "Gantt" in the search field, locate the Gantt gadget and click the **Add gadget** button.

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13 https://confluence.atlassian.com/jiracoreserver/configuring-dashboards-939937983.html
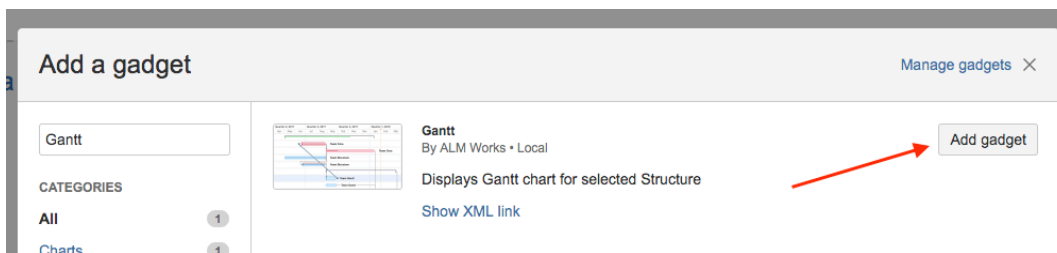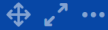
The Structure.Gantt gadget will be placed on your dashboard. Before your Gantt chart will appear there, you'll need to set your Gadget Configuration.

4.7.1.1 Gadget Configuration

When creating your Structure.Gantt gadget, you can set the following options:

- **Structure** - Defines the structure to load Gantt data for. Please note, only structures with Gantt charts already created are listed.
- **Visible Rows** - Defines how many rows of your structure will be visible in the chart at a time. (To see additional rows, you can hold Shift+Left Mouse Button and drag the chart.) Set this value to "0" to see all available rows. Please note, the gadget height may increase significantly if there are a lot of rows.
- **Hierarchy Level** - Defines how many levels to expand the structure and display in your chart. "0" means no expansion at all. Please note, it is not possible to manually expand and collapse structure nodes within the gadget.
- **Start From** - Specifies the first date that will be visible on the chart. You can choose from **Project Start**, **Custom Date** and **Today**. If you select **Today**, the chart will be drawn starting from today, or you can specify a number of days to show prior to today.
- **Zoom Level** - Specifies the zoom that will be used to represent the chart. Available options are: Days, Weeks, Months, Quarters, Years.
- **Baseline** - Specifies whether or not to include a Baseline(see page 58) in the gadget.
- **Item Information** and **Chart Details** - These allow you to select which details will be shown on your exported chart.
- **WBS** - Specifies whether the work breakdown structure should be included next to the chart in the gadget. Please note, Issue Key and Summary are the only columns supported by the Structure.Gantt gadget at the time.
- **Width** - If WBS is enabled, this allow you to specify the width (in pixels) of the included structure.
- **Refresh Interval** - Specifies how often the gadget should refresh itself and fetch new data from Jira. By default, this is set to "never", i.e. to update the chart data you need to manually refresh the gadget from the gadget menu or by refreshing the page itself.

Structure.Gantt

Structure *

Visible Rows

| 20 |

Leave empty to see all rows

Hierarchy Level

| 3 |

The maximum hierarchy level of items shown on the chart. Leave empty to include everything.

Start From

| Project Start ▼ |

First date visible on the chart

Zoom Level

| Weeks ▼ |

Baseline

| No Baseline ▼ |

Item Information
- ☑ Summary
- ☑ Issue Key
- ☑ Resources Assigned

Gantt chart Details
- ☑ Critical Path
- ☑ Progress
- ☑ Dependencies
- ☑ Chart Warnings
- ☑ Task Indicators
- ☑ Baseline delays
- ☑ Today Marker
- ☑ Project Start Day
- ☑ Fix Versions

WBS
- ☑ Include Key and Summary

Width

| 400 |

Maximum width of the WBS section (in pixels). Leave empty for no limit.

Refresh Interval:

| Never ▼ |

How often you would like this gadget to update

Save

4.7.1.2 Editing Configuration for an Existing Gadget

To change the configuration for an existing dashboard gadget, click the **More Options** icon "..." at the top-right of the gadget and select **Edit**.
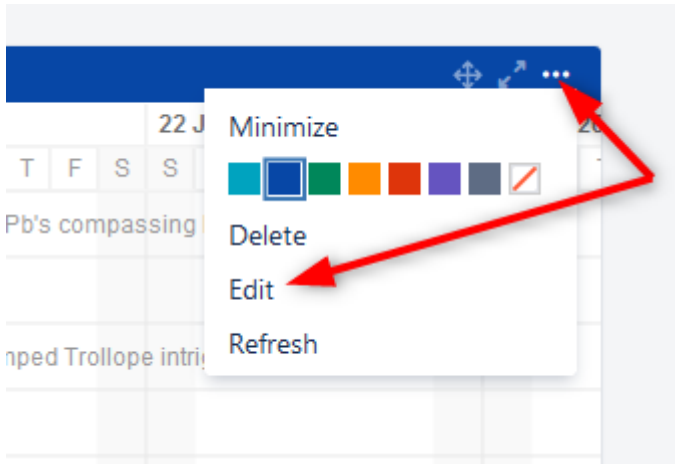
4.7.1.3 Open the Gantt Chart from the Gadget

To edit or view the full Gantt chart, click the **Open** link at the bottom of the gadget.
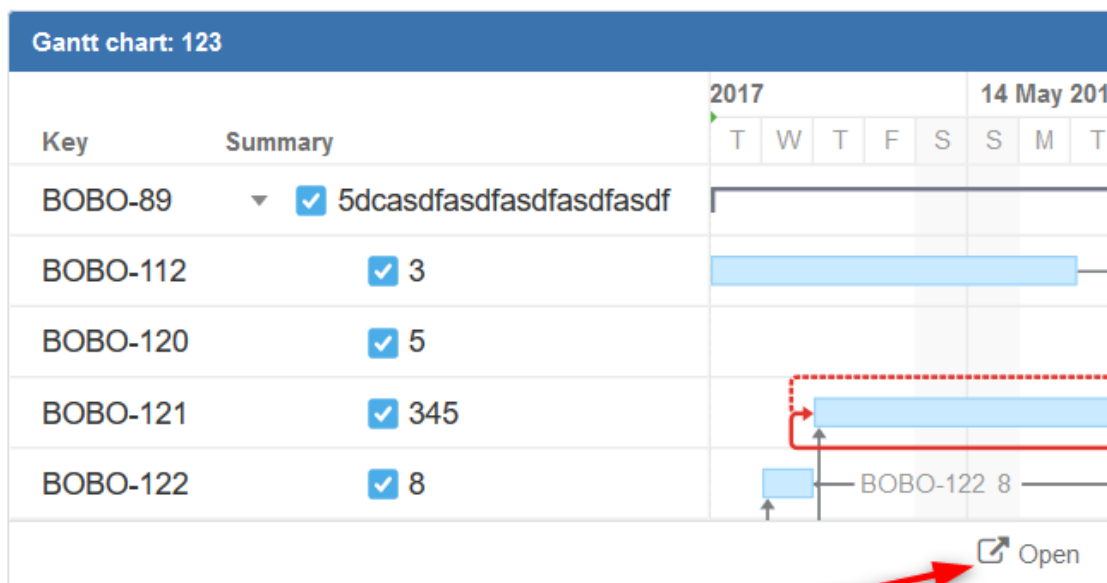
4.7.2 Confluence Gadget

To add the Structure.Gantt gadget to a confluence page, open the Confluence page you wish to insert the Structure.Gantt gadget into. Click the **Plus** button in the toolbar and select **Other macros**.
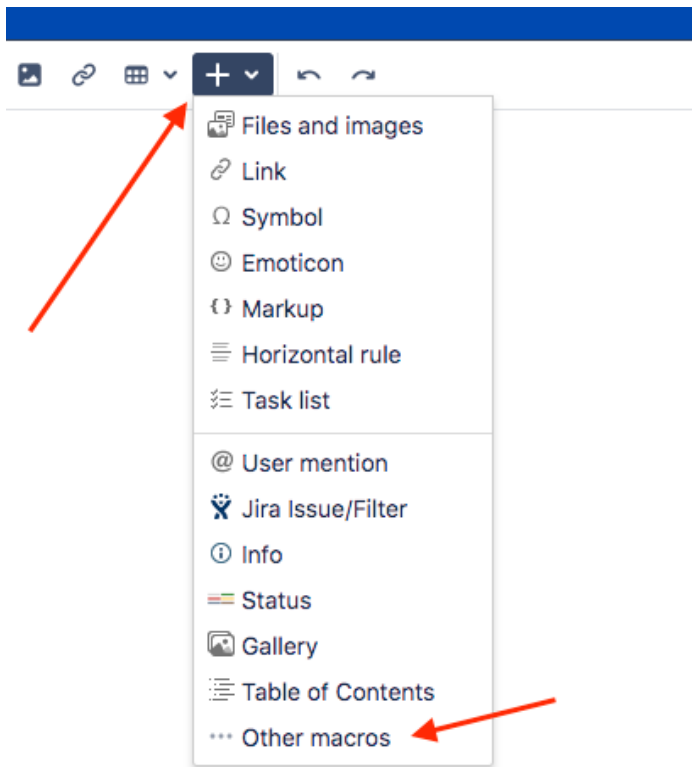
In the Select macro window, type "Gantt" in the search field and click **Structure.Gantt Gadget** in the search results.

> ⓘ If the Structure.Gantt Gadget does not appear in the search results, your system administrator may need to configure Confluence for the Structure.Gantt gadget(see page 122).

4.7.2.1 Initial Configuration

Before you can add the Structure.Gantt gadget to your Confluence page, you need to configure it.

On the left side of the Insert Gantt Macro screen:

- Specify the gadget width (enter "100%" to make the gadget occupy the entire page width)
- Select whether or not to include a border around the gadget (We recommend unchecking the border setting, since there is already a border within the Structure.Gantt gadget.)

On the right side of the screen, set your desired configurations for the gadget:

- **Structure** - Defines the structure to load Gantt data for. Please note, only structures with Gantt charts already created are listed.
- **Visible Rows** - Defines how many rows of your structure will be visible in the chart at a time. (To see additional rows, you can hold Shift+Left Mouse Button and drag the chart.) Set this value to "0" to display all available rows. Please note, the gadget height may increase significantly if there are a lot of rows.
- **Hierarchy Level** - Defines how many levels to expand the structure and display in your chart. "0" means no expansion at all. Please note, it is not possible to manually expand and collapse structure nodes within the gadget.
- **Start From** - Specifies the first date that will be visible on the chart. You can choose from **Project Start**, **Custom Date** and **Today**. If you select **Today**, the chart will be drawn starting from today, or you can specify a number of days to show prior to today.
- **Zoom Level** - Specifies the zoom that will be used to represent the chart. Available options are: Days, Weeks, Months, Quarters, Years.
- **Baseline** - Specifies whether or not to include a Baseline(see page 58) in the gadget.
- **Item Information** and **Chart Details** - These allow you to choose which details will be shown on your exported chart. These are similar to the display options available for your actual chart under the Display Options menu (see Gantt Chart Elements(see page 42)).
- **WBS** - Specifies whether the work breakdown structure should be included next to the chart in the gadget. Please note, Issue Key and Summary are the only columns supported by the Structure.Gantt gadget at the time.
- **Width** - If WBS is enabled, this allow you to specify the width (in pixels) of the included structure.

- **Refresh Interval** - Specifies how often the gadget should refresh itself and fetch new data from Jira. By default, this is set to "never", i.e. to update the chart data you need to manually refresh the gadget from the gadget menu or by refreshing the page itself.

> ⚠ Depending on your Jira and Confluence configuration, before you can configure the Structure.Gantt gadget, you may be asked to log into your Jira account and approve gadget data access.

4.7.2.2 Editing Configuration for an Existing Gadget

To change the configuration for existing gadget, click the **Gear icon** in the bottom-right corner of the gadget preview and select **Edit.**

4.8 Using Gantt Attributes in Structure

Once you've created a Gantt chart, you can view and utilize its attributes within the corresponding structure. Gantt attributes can be turned into structure columns, used as variables in formulas or used in transformations.

The following Gantt attributes can be added to a structure:

- Gantt Start Date
- Gantt Finish Date
- Gantt Milestone Date
- Gantt Progress
- Gantt Type

> ⚠ It is not possible to use Gantt attributes in Structure Automations[14].

4.8.1 Adding a Gantt Attribute Column to a Structure

To add a Gantt attribute to your structure, click the + icon to the right of the column headers to create a new column in the structure[15]. Scroll down to the Gantt section, or begin typing the attribute name in the search field, and select the desired attribute.

---

14 https://wiki.almworks.com/display/structure/Automation
15 https://wiki.almworks.com/display/structure051/Customizing+Columns
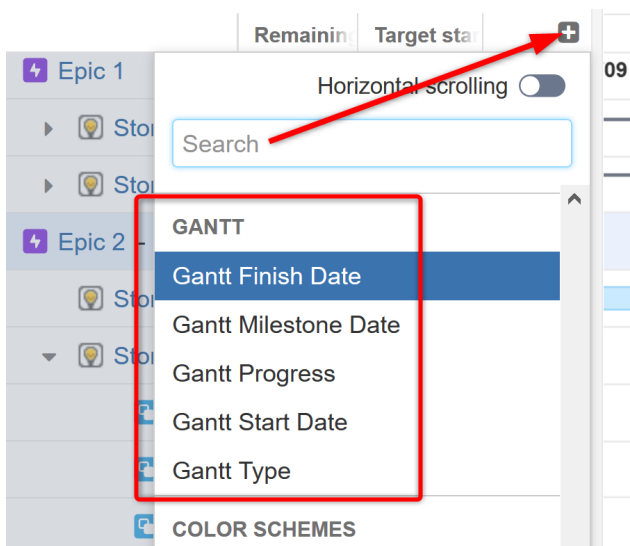
4.8.2   Using Gantt Attributes in Formulas

Structure.Gantt attributes can also be used in Structure formulas. Simply enter a new variable into your formula and assign it to the appropriate Gantt attribute.
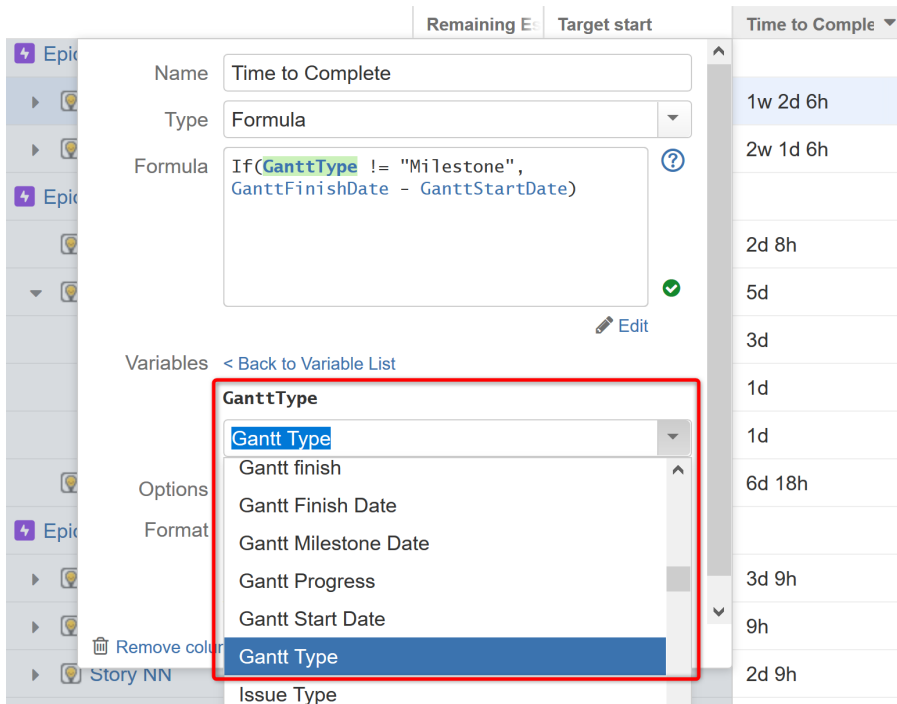
To learn more about using formulas and variables in Structure, see Formula Columns[16].

4.8.3   Using Gantt Attributes in Transformations

Using Transformations, you can sort items in your structure by their Gantt attributes. To do so, open the Transformations panel and select **Add Transformation | Sort**.

---

[16] https://wiki.almworks.com/display/structure/Formula+Columns
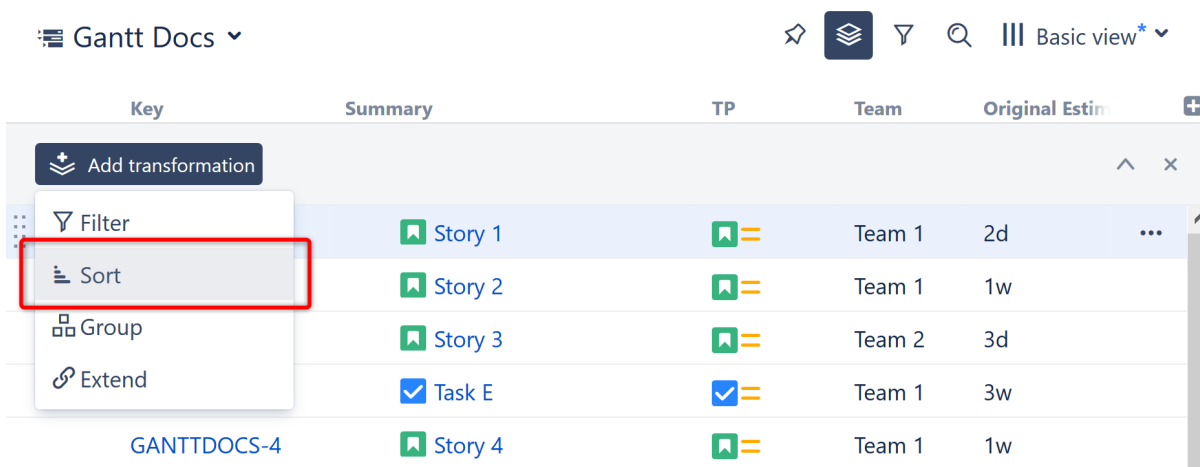
In the **Sort by...** menu, select **Attribute...**
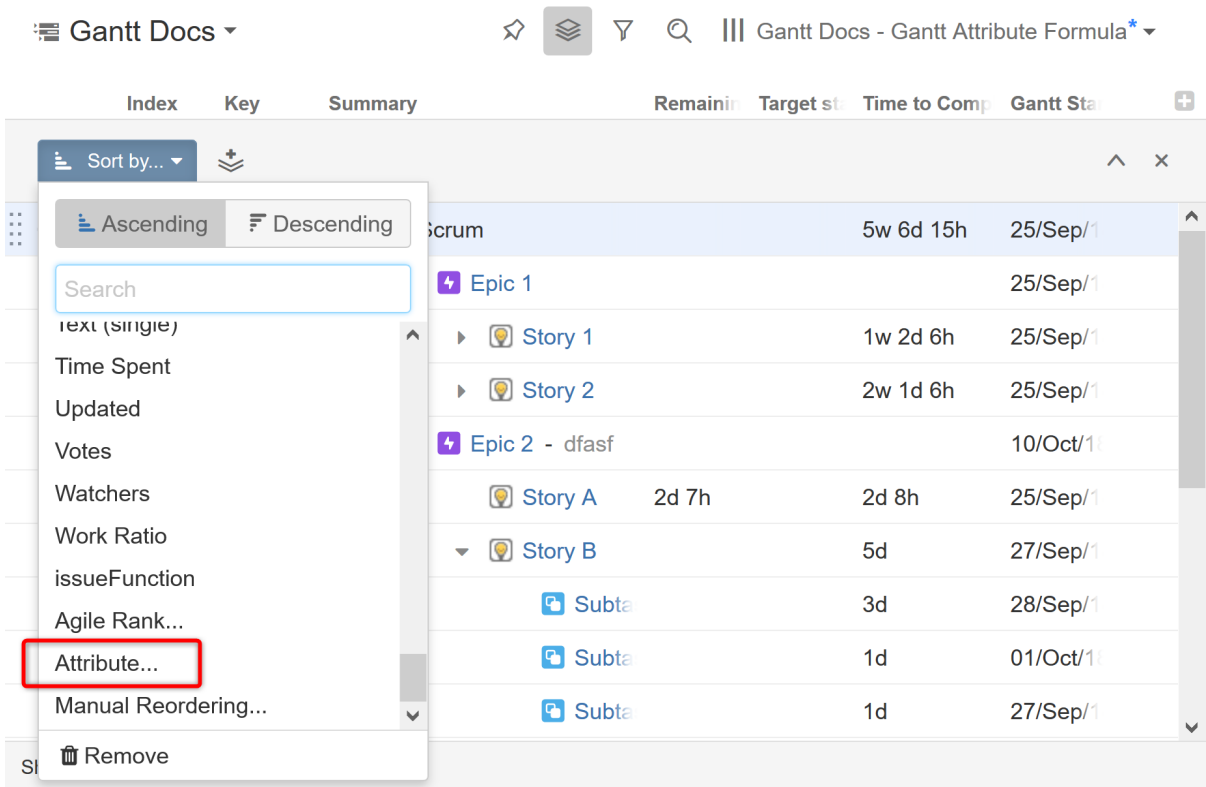
Use the drop-down or search to select the appropriate Gantt Attribute.
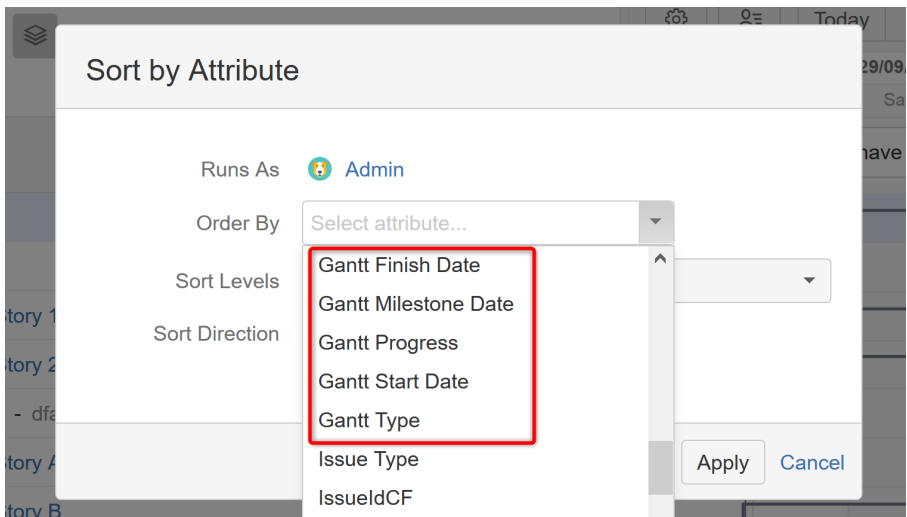
Once you click apply, your items will now be sorted accordingly.
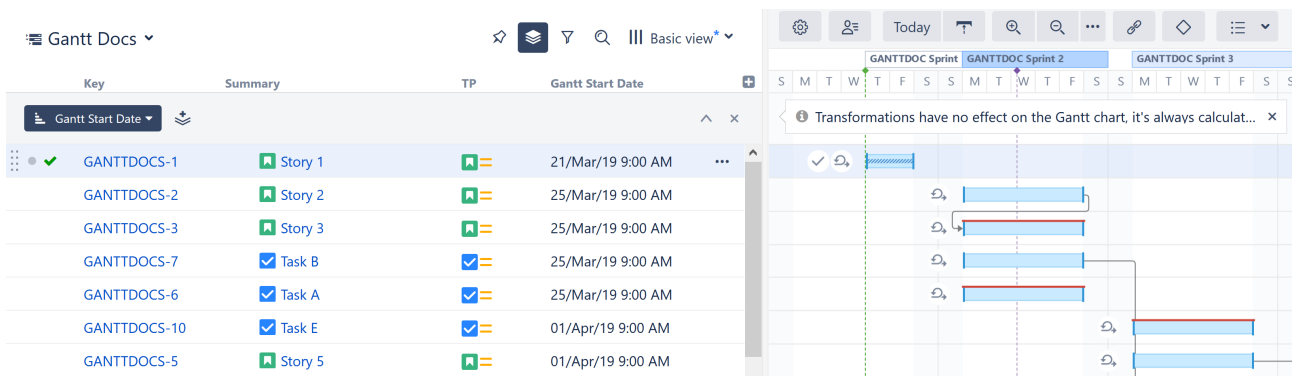
✅ You can also group items by some Gantt attributes using the Group by | Text Attribute transformation. Currently, this only works for Gantt Progress and Gantt Type attributes.

5 Settings and Configuration

Structure.Gantt is a highly flexible app. It uses Structure and Jira data to build the chart, and it lets you configure most of the parameters that define the chart's behavior.

The following sections will walk you through configuring and customizing your Gantt chart(s) to fit your unique business needs.

5.1 Gantt Chart Settings

Gantt Chart Settings allow you to select how and which items are displayed within your Gantt chart. You can adjust your settings at any time by clicking the Gantt Chart Settings icon ⚙ in the Gantt toolbar.

Gantt Chart Settings
Edit the options below to configure Gantt chart for this structure.

Project Start Day

Start Day * `2018-02-02`

Project Start Day defines the starting point for automatic scheduling.

Gantt Chart Configuration

Configuration * `Demo 1` ▾ Edit

Gantt Configuration defines scheduling, dependencies and resource settings.

Manage configurations

The **Project Start Day** is used as the starting point for automatic scheduling within your chart.

The Gantt Chart Configuration(see page 86) determines how items operate within your chart. This is where you set how scheduling, dependencies, and resources should work.

- If you are new to Structure.Gantt, we recommend starting with the **Default** configuration and modifying as necessary later.
- To make changes to an existing configuration, locate the configuration within the drop-down menu and click **Edit.**
- To build a new configuration, click **Manage configurations**.

To learn more about creating custom chart configurations, see Gantt Configuration in Details(see page 86).

5.1.1 Fix Versions

Structure.Gantt can also place markers at the top of your timeline to show Fix Versions.
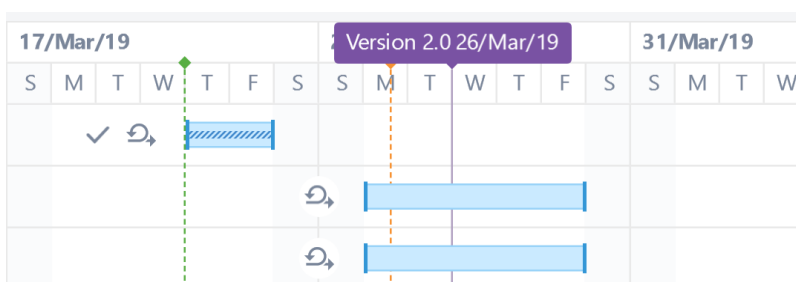
To enable this feature, simply enter the projects you want to show fix versions from.

Fix Version Timeline Settings

Projects   Gantt Docs ✕   Scrum ✕

Fix Versions from the selected projects will be displayed on the timeline

ⓘ In the event that the same version with the same release date is defined for multiple selected projects, those will be merged into one single Fix Version.

5.1.2 Sprints

Structure.Gantt is able to visualize past, current and future sprints.
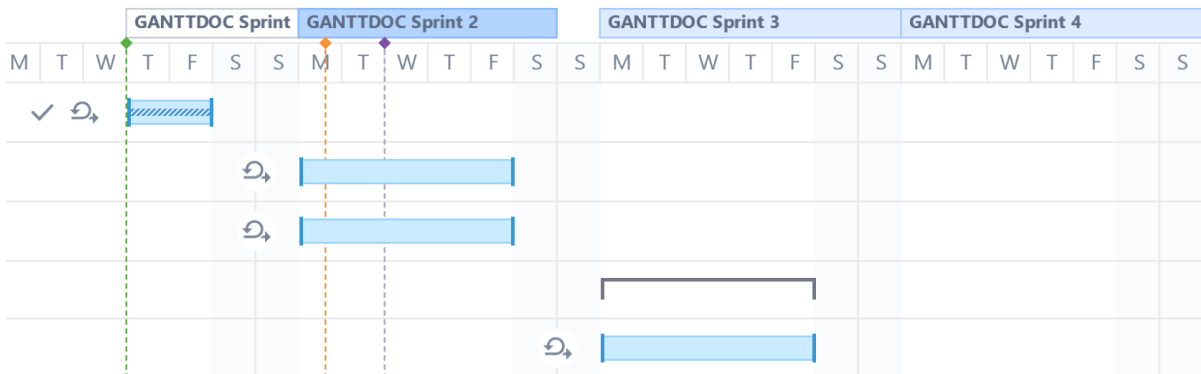
To configure future sprints, you need to specify:

- **Sprint start day** - the day of the week your sprints usually start on
- **Duration** - how long sprint lasts, in weeks

Sprints configuration

Sprint start day   MON ▾   Duration   2 ⇄ week(s)

Default sprint start day and duration for Agile tasks

Add sprints configuration

5.1.2.1 Future Sprint Scheduling

The first future sprint is scheduled for the **Sprint start day** immediately following the end of the active sprint. If the active sprint ends on the same day of the week as the Sprint start day, Structure.Gantt will visualize the active sprint ending on the previous day.

Future sprints are scheduled for the specified duration, and each additional future sprint begins immediately following the previous.

ⓘ If there is no active sprint, Structure.Gantt will base future sprints on the Planned Finish Date of the latest closed sprint. If there are no closed sprints, future sprints will begin on the first Sprint start day following the Project start date.

⚠ On your chart, there may be a gap between the active sprint and the first future sprint, based on the specified Sprint start day and the planned finish date for the active sprint. This is done to keep your start days consistent.

5.1.3 Custom Sprint Schedules

You can also create custom schedules for sprints from specific boards. To add a custom schedule, click the **Add sprints configuration** link.

Sprints configuration

Sprint start day MON ▼ Duration 2 week(s)

Default sprint start day and duration for Agile tasks

Boards SCRUM board ✕ 🗑

Sprint start day MON ▼ Duration 3 week(s)

Add sprints configuration

In the example above, any sprints from the SCRUM board will have a 3 week duration. All other sprints will use the default configuration (2 weeks).

> ❗ If you have copied boards, make sure to assign all copies to the same custom configuration. See Same Sprint on Multiple Boards(see page 33) for more details.

5.2 Gantt Configuration in Details

Using Gantt configuration, the chart properties you define can be stored, shared and reused for other charts.

A Default configuration is created the first time you run Structure.Gantt, allowing you to get started with Gantt charts right away. The default configuration works perfectly well for many users; however, we recommend going through the available options to better understand how the Gantt chart works and make sure you are using a configuration that best meets your needs.

5.2.1 Changing Gantt Configuration

You can customize Gantt configuration during your initial chart setup or (if you are already working with your chart) by clicking the Settings button in the chart toolbar.
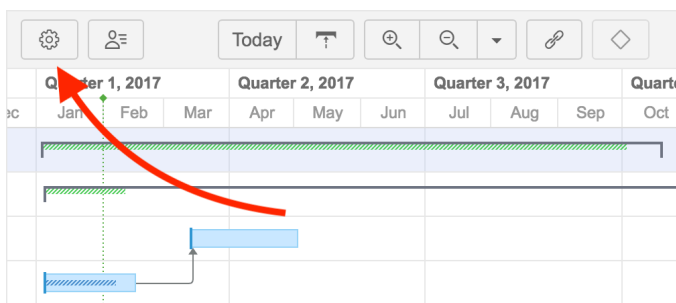
On the Gantt Chart Settings(see page 83) screen, look for the Gantt Chart Configuration section.

Gantt Chart Configuration

Configuration * [Default ▾]   Edit

Gantt Configuration defines scheduling, dependencies and resource settings.

Manage configurations

You can quickly switch to another existing configuration by selecting it in the Configuration drop-down menu and clicking **Save Settings** at the bottom of the page. To make changes to a configuration, select it in the menu and click **Edit**. If you need to create a new configuration, or to see a complete list of your existing configurations, click **Manage configurations**.

Gantt chart Configurations   [Create New Configuration]   ✕

Active	Name		Actions
○	Gantt Demo Gantt Configuration		Edit •••
○	Gantt Docs Gantt configuration for structure "Gantt Docs"		Edit •••
○	Gantt Q&A		Edit •••
○	Gantt Test		Edit •••

The Gantt Chart Configurations list includes:

- Configurations you made - These can be used in your chart, edited, and deleted (with some exception; see Deleting Gantt Configurations(see page 118) for more information).
- Shared configurations - These can be used within your chart, but cannot be edited or deleted (with some exceptions; see Permissions(see page 119) for more details).

To edit one of the existing configurations, click the **Edit** link next to it. To create a new one, click the **Create New Configuration** button.

> ⓘ   To be able to create new configurations, you need to have permissions to create structures.

5.2.1.1 Customize a Configuration

Gantt configuration has several important groups of properties. You can define all of them as you go through the Configuration dialog tabs:

- General Settings(see page 87)
- Scheduling(see page 87)
    - Work Estimates(see page 87)
    - Progress(see page 87)
    - Manual Scheduling(see page 87)
        - Use Sprints for Manual Scheduling(see page 87)
        - Scheduling Precedence(see page 87)
    - Precision(see page 87)

- Grouping
- Dependencies
- Resources
- Calendars

Once you are happy with your configuration, click the Save button to save your configuration and select it in the Gantt Chart Settings to use it in your Gantt chart.

5.2.2 General Settings

In the General tab you define the basic elements of your Gantt chart configuration.

- **Name** - We recommend giving your configuration a name that conveys its purpose or corresponds with the project you will be using it for.
- **Description** - Enter a brief description of the configuration, so you and your users know when best to use it.
- **Calendar** - Select the calendar to be used for displaying the chart to users. We'll cover this more in-depth in the Calendars section.
- **Owner** - Only the owner and Jira administrators can change the configuration. When there is no owner defined, anyone who has permissions to create new structures is allowed to edit the configuration.
- **Sharing** - Check this box to share your configuration with other users. They will be able to see the configuration and use it in their Gantt charts, but they will not be able to modify the configuration in any way.

ⓘ If you share your configuration, and someone uses it in their Gantt chart, you may not be able to delete it. Additionally, shared configurations without a specified owner can be edited by anyone, which could result in changes to your chart. See Permissions for more details.

5.2.3 Scheduling

The Scheduling section of the Gantt configuration allows you to define how the Gantt chart works with task Start and Finish dates, duration and other parameters:

5.2.3.1 Work Estimates

In this section, you can configure how the work (effort required to complete the task) is determined.

The work required for each task can be estimated using Time Tracking and/or another estimate attribute, such as Story Points, a text or numeric custom field, or even a formula.

- For both Time Tracking and custom estimates, you need to specify the Default Estimate, which will be used for tasks with no estimate defined.
- For custom estimates, you need to define the attribute's Value (Story Points, minutes, hours, etc.).
- For Story Points, you also have to define an Hours Ratio, or how many hours are in each story point. This is used to convert Story Points into hours and back.

Using Time Tracking AND Custom Estimate

If you are working on a project where teams use both time tracking and a custom estimate, you can select both options. By default, Time Tracking will be preferred.

If you use both options and Time Tracking is preferred, Structure.Gantt will calculate time tracking using:

1. Time Spent + Remaining Estimate, if work is logged for the task.
2. Original Estimate, if no work is logged.
3. The custom estimate attribute value, if no work is logged and there is no Original Estimate.
4. Default Estimate, if no other estimate information is available.

If you adjust the task duration by changing the size of the task bar in the chart, Structure.Gantt will update the Time Tracking data, even if the task estimate was originally set using a custom estimate. If you want to use the custom estimate instead, check the **Prefer Custom Estimate over Time Tracking** box.

> ⓘ In the event that there is no data available in the preferred field and Structure.Gantt has to use another field for its estimate, Structure.Gantt will update the preferred estimate field to match.

> ⚠ Changing the size of a task bar does not affect the work estimate for fixed-duration(see page 35) tasks. Additionally, it is not possible to change the size of a task bar for tasks scheduled by sprints(see page 31).

> ⚠ Work estimates define the amount of work (or effort) required to complete a task. The exact duration of the task will depend on the amount of work, the resource assigned to the task and the calendar. Please see the Resource Management(see page 54) section for more details.

5.2.3.2 Progress

Structure.Gantt allows you to configure how progress for individual tasks and groups is calculated.

Progress Calculation

Progress   [Based on Work Estimates   ▾]

Progress will be calculated based on time tracking

By default, progress is calculated using the same settings as Work Estimates(see page 89). In this case, progress will be calculated based on the values (Time Tracking, Story Points, etc.) you selected in the Work Estimates section.

If you prefer, you can specify a different field from Work Estimates or use a Formula(see page 90) for progress calculation.

> ⓘ While using Time Tracking, tasks with non-empty resolutions are treated as 100% complete.
> If using a Formula, it should return values from 0 to 100. All values higher than 100 will be treated as 100.

Progress Calculation
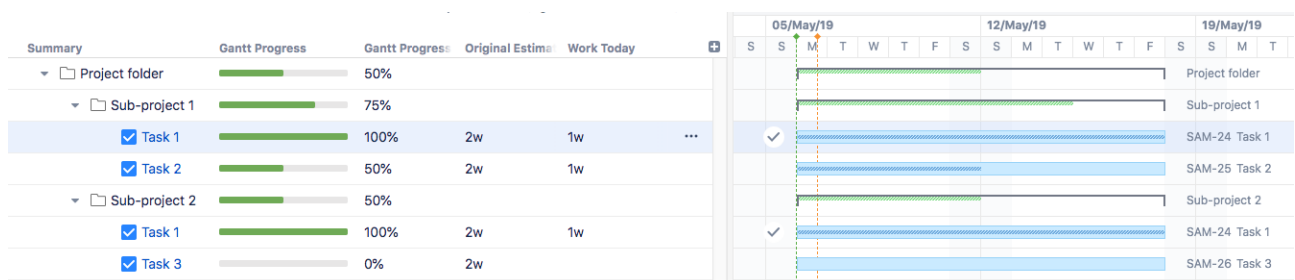
When Time Tracking is used, a task's progress is calculated in the following way:

- For non-finished tasks, progress is based on Work and Time Spent values. In the above example, **Task 2** has a progress of 50% (2 week Original Estimate / 1 week Time Spent).
- Tasks are treated as 100% complete if their resolution date is not empty.

When Story Points are used for work estimation, a task's progress is calculated in the following way:

- 0% progress is shown for any non-finished task.
- 100% progress is shown for any complete task (i.e. tasks with a non-empty resolution).
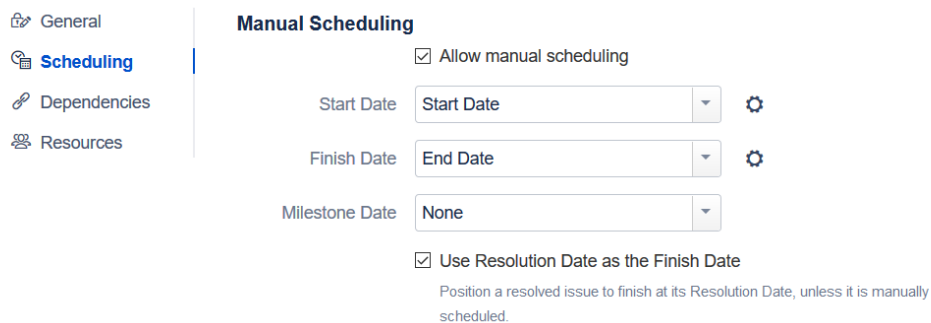
For groups, the progress is calculated as a total progress of all unique tasks within the group:

- **Sub-project 1** has a total progress of 75%, the average between **Task 1** (100%) and **Task 2** (50%).
- **Sub-project 2** has a total progress of 50%, the average between **Task 1** (100%) and **Task 3** (0%).
- **Project folder** has a total progress of 50%, the average of **Task 1** (100%), **Task 2** (50%) and **Task 3** (0%). Notice that Task 1 appears twice (under Sub-project 1 and Sub-project 2), but each task is only counted once when determining a group's progress.

5.2.3.3 Manual Scheduling

By default, Structure.Gantt will auto-schedule tasks based on your project start date, task estimates, predecessors and dependency types. In order to set task start and finish dates manually, you need to enable Manual Scheduling and select the fields that will store the manually set start and finish dates.

If you already have start and finish dates defined in Jira, this option allows you to use those to place tasks appropriately within your Gantt chart.

For all values, you may use either Date or Date/Time Jira custom fields or (in some cases) predefined system fields.

> ⚠ If one of the selected fields has Date type and the other one has Date/Time type, they both will be treated as Date.

Once Manual Scheduling is enabled, you can adjust Start, Finish, and Milestone dates directly from your Gantt chart.

To learn more about manually scheduling from within your Gantt chart, see Scheduling Tasks.

Read-Only values
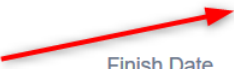
Structure.Gantt allows you to adjust manual dates and/or work estimates simply by dragging and dropping task bars within your chart. Depending on which attribute you selected to represent these values, it may or may not be possible to update those values.

If you use a Formula to calculate a date, or if the custom field with the date is read-only, you will not be able to make manual updates to that date. In this case, Gantt configuration displays a "read-only" message near the field selector, and you receive an error if you try to drag a task to a new date within your chart.

Use Resolution Date as the Finish Date

When this option is enabled, all resolved tasks that are not scheduled manually will be scheduled using their resolution date as the Finish Date. If the Finish date is defined, it will be used instead of the resolution date.

Use Sprints for Manual Scheduling

When the **Use sprints for manual scheduling** option is selected, tasks can scheduled to begin and end based on sprint dates.

When sprints are used for manual scheduling, tasks that are assigned to sprints will be scheduled for the duration of those sprints, based on current sprint dates and future sprint estimates(see page 85). The work for each task will be evenly distributed across its sprint duration. For more information about sprint-based scheduling, see Planning with Sprints(see page 31).

Prefer sprints over manual start and finish dates

If this option is selected, issues that are assigned to a sprint will automatically be scheduled based on the sprint. If this option is not selected, issues with manual Start or Finish dates will be scheduled based on those, regardless of their sprint assignment.

To learn more, see Scheduling Precedence(see page 93).

Scheduling Precedence

By default, tasks in Structure.Gantt are automatically scheduled(see page 27) based on the project start date, work estimates and dependencies. If Manual Scheduling is selected in the Gantt configuration(see page 86), tasks will be scheduled in the following manner, depending on the Manual Scheduling(see page 91) options:

Use sprints for manual scheduling AND **Prefer sprints over manual start and finish dates** are selected:

1. If an issue is assigned to a sprint, it will be scheduled for the duration of that sprint, even if it has Start/Finish dates available
2. If an issue is not assigned to a sprint, it will be scheduled based on its Start/Finish dates
3. If no Start/Finish dates are available, the issue is resolved and **Use Resolution Date as the Finish Date** is selected, the issue will be scheduled based on its resolution date
4. Otherwise, the issue will be automatically scheduled

Use sprints for manual scheduling is selected, but **Prefer sprints over manual start and finish date** is NOT selected:

1. If a Start or Finish date is available, the issue will be scheduled based on these, even if it is assigned to a sprint
2. If no Start or Finish date is available, but the issue is assigned to a sprint, the issue will be scheduled for the duration of that sprint
3. If the issue is not assigned to a sprint, is resolved and **Use Resolution Date as the Finish Date** is selected, the issue will be scheduled based on its resolution date
4. Otherwise, the issue will be automatically scheduled

Use sprints for manual scheduling is NOT selected:

1. If a Start or Finish date is available, the issue will be manually scheduled based on these
2. If no Start/Finish dates are available, the issue is resolved and **Use Resolution Date as the Finish Date** is selected, the issue will be scheduled based on its resolution date
3. Otherwise, the issue will be automatically scheduled

5.2.3.4 Precision

Structure.Gantt allows you to define the precision used for scheduling and calculations. You can choose 1 minute, 1 hour or 1 day precision (1 hour is used by default).

Precision

| Precision | 1 Hour |

Precision defines the minimal amount of work used in planning. All time values will be rounded based on selected precision.

Precision defines the minimum meaningful amount of work. All date, time and duration values in your chart are rounded according to the selected precision. When rounding for precision:

- Start dates are rounded down
- Finish dates and durations are rounded up

For example, with the default 1 hour precision, a duration of 15 minutes will be displayed in your chart as 1 hour. A Start Date of September 12, 2018 9:45 AM would be shown as September 12, 2018 9:00 AM.

> ⚠️ Structure.Gantt rounds the value of Jira fields when doing calculations, but the field value itself is not updated.

5.2.3.5 Grouping

A group aggregates values from the tasks it contains, and its own values for manual start date, finish date or work estimation are ignored. You can configure your Gantt chart to show parent issues either as actual tasks or as groups (containers for tasks).
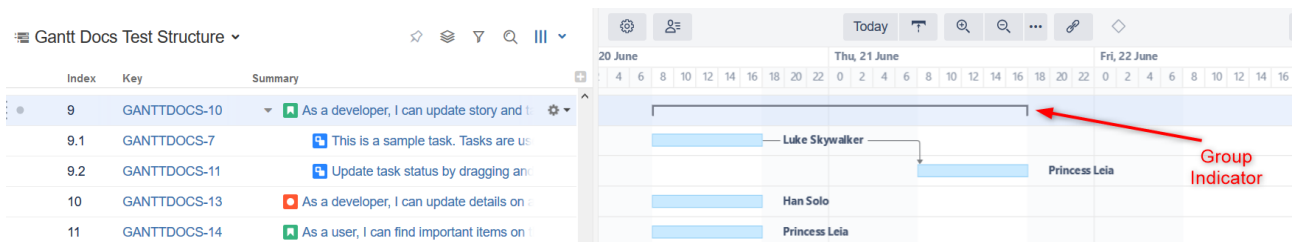
Structure.Gantt groups issues by default. To have your parent issues shown as actual tasks, on the Scheduling screen, under Groups, uncheck the "Treat parent issues as groups" checkbox.

> ℹ️ If a parent issue contains non-issue items only (folders or Confluence pages), it will be shown as a task, regardless of the selected option.

> ⚠️ Grouping preference is applied to the whole Gantt chart and cannot be configured for individual parent issues.

5.2.4 Dependencies

Structure.Gantt uses Jira issue links for working with dependencies between issues.

To create issue-to-issue dependencies, you first need to specify the link types you want to use for each dependency relationship.

Gantt Docs ✕

General

Scheduling

Dependencies

Resources

✎ New Slice

Epics

☑ Track dependencies

Associate issue link type with dependencies:

Dependency Type	Link Type	Favorite	Actions
Finish to Start	blocks	☐	Remove
	Add New Type ▾		
Finish to Finish	Add New Type ▾		
Start to Start	Add New Type ▾		
Start to Finish	Add New Type ▾		

Save as Copy | **Save** Cancel

By default, Finish to Start dependencies are enabled with "blocks" link type.

⚠ If you have the BigGantt add-on installed, your default link type will be "has to be done before."

5.2.4.1 Adding Dependency and Link Types

You can use multiple dependency relationships and link types within your Gantt chart. To enable a new dependency and/or link type, click the appropriate **Add New Type** button and select the link type you want to use.

Dependency Type	Link Type	Favorite	Actions
Finish to Start	blocks	☐	Remove
	Add New Type ▾		
Finish to Finish	Add New Type ▾		
Start to Start			
Start to Finish			

Search 🔍

Blocks
is blocked by
Cloners
clones
is cloned by
Duplicate
duplicates
is duplicated by

Save   Cancel

All of the options you select here will be available to you when you create a link using the link button [🔗] in the toolbar.

When you create a link by dragging one task bar to another, Structure.Gantt creates a Finish to Start dependency by default. If you have more than one link type associated with Finish to Start dependencies, it will ask you which type you want to use.

🔗 **Finish to Start**   ✕
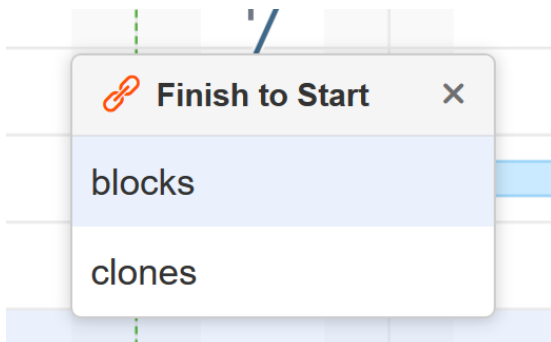
blocks

clones

5.2.4.2   Favorite

You can specify a default link type for each dependency type by checking the appropriate **favorite** box.

Dependency Type	Link Type	Favorite	Actions
Finish to Start	blocks	☐	Remove
	clones	☑	Remove
	Add New Type ▾		
Finish to Finish	is duplicated by	☐	Remove
	relates to	☑	Remove
	Add New Type ▾		

The "favorite" link type for each dependency type will be displayed by default when using the New Dependency Menu. (If you have more than one favorite for a dependency type, it will default to the favorite that appears higher in the drop-down.)

New Dependency

Select tasks to be linked and dependency type.

From SCRUM-19 Subtask MN

To Start typing issue key, summary or folder name

swap

Dependency Type Finish to Finish

Link Type relates to

Create Dependency   Cancel

If you favorite a single Finish to Start link type, that type will be used automatically when you create new links via drag-and-drop. If you have more than one favorite Finish to Start link type, the popup will ask which of your favorites you want to use.

> ⓘ When you add a dependency within your chart, Structure.Gantt creates a link of the corresponding link type between the two issues. See Working With Dependencies(see page 38) for more information about creating dependencies within a Gantt chart.
> Structure.Gantt also supports dependencies between other types of items, such as folders and pages, but these are stored within Gantt itself.

5.2.5 Resources

In the Resources section of the Gantt configuration you can configure the way resources are assigned to tasks and the default settings for resources.

This article covers resource assignment and setting default values for resources and tasks. To learn more about managing resources within your Gantt chart, see Resource Management(see page 54).

5.2.5.1 Resource Assignment

You can assign resources to issues using a Jira field (including text, list and user fields) or a Structure attribute, such as a value calculated through Formulas[17].

Here are a few common examples of resource assignments:

- To use each task's assigned user as its resource, select Assignee.
- To use teams as resources, create a text custom field called "Teams" and populate it with team names accordingly. Structure.Gantt will automatically merge similar values.
- You can also combine these using a simple formula[18]: "Assignee OR Team". If there is an Assignee for an issue, Structure will use that field. Otherwise, it will use the Team. (If you want to default to Team instead, switch the order of your formula: "Team OR Assignee".

By default, "None" value is selected.

> ⓘ When no attribute is chosen (or there is no value for that attribute field), a "default" resource is used with default settings. This does not appear in your Resources chart, but it is listed on the Task Details Panel:
>
>
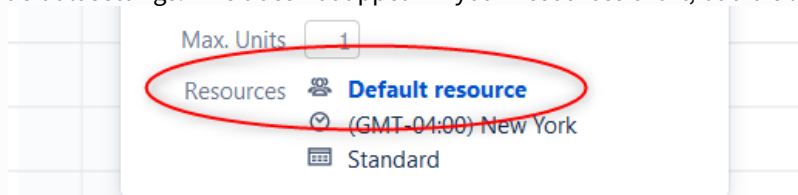
5.2.5.2 Default Resource Settings

In order to correctly allocate resources and place that information within your Gantt and Resource Usage charts, Structure.Gantt needs to determine the following parameters for each resource:

- **Units** - Defines the "size" of a resource. By default, the value is 1, which corresponds to 1 person. If you use teams as resources, and each team has 5 people able to use all available time to work on tasks, you would enter 5.
- **Time Zone** - Defines the default time zone of the resources.

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17 https://wiki.almworks.com/display/structure/Formula+Columns
18 https://wiki.almworks.com/display/structure/Formula+Columns

- **Work Calendar** - Defines the default working and non-working hours for the resource.

Default Resource Settings

Units* [1]

Units value of a resource defines how much work can be done by that resource over a fixed amount of time. Typically, Units equals to the number of people represented by the resource.

Time Zone [(GMT+03:00) Moscow ▼]

For user resources, the user's time zone is used as the default, regardless of this setting. Individual user's time zone can still be adjusted in the Resource Settings dialog.

Work Calendar* [40 hours per week ▼]

Default values will be used when a resource does not have its own values specified or when no resource is provided. These values can be overwritten for individual resources, through Resource Settings. See Resource Management(see page 54) for more information.

5.2.5.3 Task Settings

Task settings allow you to configure Maximum Units and Leveling Priority.

Task Settings

Max. Units Attribute [Store in Gantt chart ▼]

Maximum number of resource units that can be assigned to a task. The value is based on the selected Jira field, Structure attribute or is stored in the Gantt chart. Click the task and enter a new value into Max. Units to change it.

Default Max. Units* [1]

Default is used if no value is specified in the Task Details Panel.

Leveling Priority [Store in Gantt chart ▼]

Priority used for resource leveling. Tasks with higher priority will be scheduled earlier.

Default Leveling Priority* [1]

Default is used if no value is specified in the Task Details Panel.

Max. Units Attribute

Maximum Units defines the maximum number of resource units that can be allocated for a task. For example, if you set the default Resource Units (above) to 5 and the Maximum Units for a task to 1, that task won't be able to use more than 1/5 of a resource's capacity.

Max. Units Attribute allows you to select where the Maximum Units values are stored. You can choose a Jira field, Structure attribute or the Structure.Gantt database. Once selected, the Maximum Units value for each task can be set or updated using the Task Details panel (see Gantt Chart Elements(see page 42)). If a Jira field or Structure attribute is used, you can also update the maximum units for a task directly in your structure, by adding the appropriate column to your view.

Default Max. Units

This default value will be used when a task does not already have a maximum units value set.

Leveling Priority

Leveling Priority allows you to prioritize certain tasks when using the Resource Leveling (see page 63)feature in Structure.Gantt. When tasks need to be moved due to overallocation, those with higher weights will be placed earlier in the timeline.

Leveling Priority	Store in Gantt chart ▼

Priority used for resource leveling. Tasks with higher priority will be scheduled earlier.

Default Leveling Priority*	1

Default is used if no value is specified in the Task Details Panel.

By default, internal storage is used for Leveling Priority, all tasks are given the Default Leveling Priority and a new priority can be set for individual tasks using the Task Details Panel(see page 50). Leveling Priority can also be automatically assigned to tasks based on a standard attribute, custom field or formula. Additionally, these settings can be customized for specific issues using Slices(see page 100).

The Default Leveling Priority value is used for tasks when no other value is specified.

5.2.6 Calendars

> ⓘ **Please bear with us as we improve this feature.**
> At the moment, there is no good user interface for editing calendars. We are going to ship it in future versions.
> Currently, if you need to define a calendar, please refer to the technical documentation about JSON format or write us to support@almworks.com[19] so we can help you.

Structure.Gantt allows you to define different calendars for the following:

- Gantt chart itself(see page 88)
- Default resource(see page 97) calendar
- Individual resource(see page 54) calendar

---

19 mailto:support@almworks.com

This is especially useful when you need more precise planning for resources working on different schedules.

Schedules are defined as Calendars, and Structure.Gantt comes with two predefined calendars: "Standard" (40-hour work week, 9-17 every workday) and "24 Hour", with all time marked as working time.

Jira administrators can also define additional calendars using the **Administration | Structure | Structure.Gantt | Work Calendars** page.

5.2.6.1 Calendar format

A calendar is defined by a code in JSON format, which sets the working periods for each day of the week and lists exceptions.

Basic structure

Every calendar consists either of a week schedule or list of exceptions, or both:

```
{
  "week": ...,
  "exceptions": ...
}
```

> ⚠ All calendar definitions should be wrapped in curly braces: { }

Week schedule

Week schedule is defined by specifying work ranges for every weekday (monday, tuesday, wednesday, thursday, friday, saturday, sunday):

```
"week": {
    "monday": [
      {
         "start": 900,
         "finish": 1300
      },
      {
         "start": 1400,
         "finish": 1715
      }
    ],
    "tuesday": [
      {
         "start": 900,
         "finish": 1300
      },
      {
         "start": 1400,
         "finish": 1715
      }
    ]
}
```

Time is written using HHMM format, where HH is hour (0-24) and MM is minutes, for example: `1730` for 17:30 (5:30 pm) and `930` for 9:30.

You may skip a weekday either by skipping its definition completely or providing an empty list of ranges:

```
{"monday": []}
```

Exceptions

Exceptions are defined for exact dates:

```
"exceptions": [
    {
      "date": 20170301,
      "workPeriods": []
    },
    {
      "date": 20170305,
      "workPeriods": [
    {
      "start": 900,
      "finish": 1300
    },
    {
      "start": 1400,
      "finish": 1715
    }]
    }
]
```

Dates are written using YYYYMMDD format, where YYYY is a 4-digit year, MM is a month (1-12) and DD is a day (0-31).

The workPeriods parameter can be empty, which means it is a day off, or can contain custom start and finish times, which will override the times you have defined in the main scheme.

Hierarchy

You can also organize calendars into a hierarchy via the "Based on" property, so you can create more specific calendars, based on a general calendar ("Standard", for example).

> ⓘ In this case, existing calendar-week schedule values are overridden (i.e. the definition for "wednesday" in a child calendar will override the "wednesday" schedule of its parent calendar).

Time zones

Calendars don't have time zone information and should be written in your local time. Time zones are provided separately and are taken either from the current user profile TZ (for the Gantt chart, configured at the User Profile page) or from default or individual resource settings:

Deleting Calendars
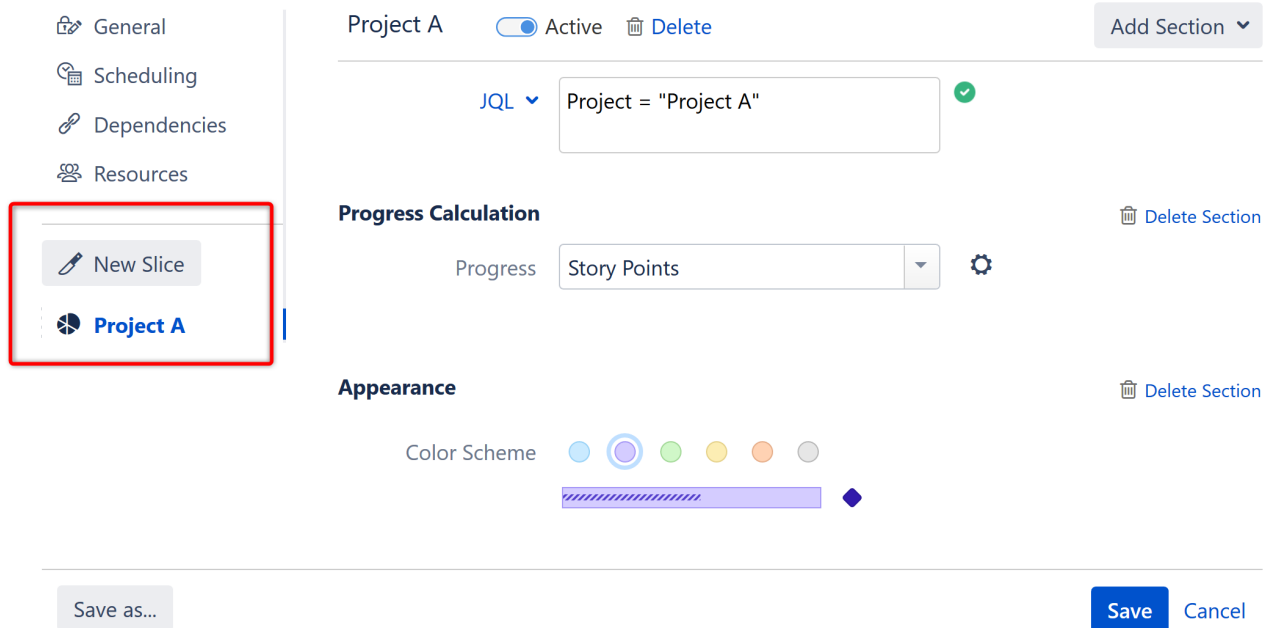
Calendars can be deleted (even the ones that are used by other calendars as Based On or by Gantt charts). Gantt will continue to work properly, even if a specified calendar cannot be found: a hard-coded calendar definition, similar to a default version of "Standard" calendar, will be used. However, this is not normal and should be fixed.

> ⓘ   A Gantt info popup will show a warning as soon as the Gantt calendar becomes unavailable.
> For a resource calendar issues, there is no notification shown.

5.3 Slice-based Configurations

In addition to your general settings, you may have specific situations or issue types that require unique scheduling or dependency rules. It may be helpful to color-code issues from different projects or exclude some issues from your chart completely. The slice feature allows you to do just that.

Gantt Docs

General

Scheduling

Dependencies

Resources

New Slice

Project A

Project A   Active   🗑 Delete   Add Section ⌄

JQL ⌄   Project = "Project A"   ✓

Progress Calculation   🗑 Delete Section

Progress   Story Points   ⚙

Appearance   🗑 Delete Section

Color Scheme   ○ ◉ ○ ○ ○ ○

Save as...   Save   Cancel

Slices allow you to fine-tune your chart's configuration for a specific set of issues. When you create a slice, you tell Structure.Gantt to override the default configuration for certain issues, using new configuration rules that you establish for that slice.

Here are some examples of how "slices" can help you further customize your chart:

- Establish unique scheduling rules based on a JQL query
- Assign a unique bar color to specific projects or issue types
- Exclude small sub-tasks that have no impact on the schedule
- Set unique dependency configurations for different projects

The following articles will show you how to create a slice, define which issues the slice should be applied to and customize the configuration for the slice.

5.3.1 Creating a Slice

To create a new slice, open the Gantt chart configuration you want to apply the slice to, and click the **New Slice** button.

5.3.1.1 Slice Name

All new slices are named "New Slice" by default. To give your slice a custom name, click the current name or the edit icon beside it.

5.3.1.2 Assigning Issues

You can assign issues to a slice by selecting specific issue types or with a JQL query.

When creating your chart, Structure.Gantt will search for the issue types you specify (or those issues that match your JQL query) and apply the custom settings you configure in your slice, before applying your default settings to the rest of your issues.

> ⚠ **JQL Limitations**
> JQL queries should be based on issue properties.
> Queries that rely on time comparisons, time-based functions – now(), endOfDay(), startOfDay(), endOfMonth(), etc. – or other variables that could change independent of issue changes, may not work properly with Slices, and should be avoided.

5.3.2 Customizing a Slice

Once you've chosen the items to include in a slice (based on Issue Type or a JQL query), you can adjust various aspects of their appearance or behavior by clicking the **Add Section** menu and selecting the properties you want to customize.

Gantt Docs   ✕

General   Epics   ⬤ Active   🗑 Delete   Add Section ⌄

Scheduling   Work Estimates

Dependencies   Issue Types ⌄   ⚡ Epic ✕   Progress Calculation

Resources   Manual Scheduling

                                                                                        Dependencies

🖉 New Slice   Resource Assignment

⬤ **Epics**   Task Settings

                                                                                        Appearance

Save as...   Item Behavior

                                                                                            Save   Cancel

The following properties can be customized for each slice:

- Work Estimates(see page 108)
- Progress Calculation(see page 108)
- Manual Scheduling(see page 108)
- Dependencies(see page 108)
- Resource Assignment(see page 108)
- Task Settings(see page 108)
- Appearance(see page 108)
- Item Behavior(see page 108)

> ⓘ You can include as many or as few sections in your slice configuration as you need. If you do not specify a
> custom property within your slice configuration, the default configuration will be used.

5.3.2.1 Work Estimates

By updating this section, you can apply custom work estimates to any issues matching your slice criteria.

Gantt Docs

☑ General	Project A ⬤ Active 🗑 Delete Add Section ▾
🗓 Scheduling	
🔗 Dependencies	JQL ▾ project = "Project A" ✅
👥 Resources	
✏ New Slice	**Work Estimates** 🗑 Delete Section
⬤ Project A	☐ Use time tracking

Default Estimate   1d   (for example, 1d)

☑ Use custom estimate

Estimate attribute   Story Points   ▾

Value   Story Points   ▾

Hours Ratio   1   (hours in one story point)

Default Estimate   1   (story points)

In the example above, time estimates for issues in "Project A" will be calculated based on Story Points, regardless of what the default configuration is for other projects.

To learn more about setting work estimates, see Work Estimates(see page 89).

5.3.2.2 Progress Calculation

You can specify a unique method of progress calculation for issues within the slice.

Gantt Docs

☑ General	Project A ⬤ Active 🗑 Delete Add Section ▾
🗓 Scheduling	
🔗 Dependencies	JQL ▾ Project = "Project A" ✅
👥 Resources	
✏ New Slice	**Progress Calculation** 🗑 Delete Section
⬤ **Project A**	Progress Based on Work Estimates ▾
	Progress will be calculated based on time tracking

For more information about configuring progress calculation, see Progress(see page 90).

5.3.2.3 Manual Scheduling

The Manual Scheduling section allows you to override the default scheduling configuration. This can be useful if you have multiple fields for scheduling information or need to prioritize different scheduling methods (automatic(see page 27), manual(see page 91) or sprint-based(see page 31)) for different sets of issues.

Gantt Docs

General
Scheduling
Dependencies
Resources

New Slice

Project A

Project A   ◉ Active   🗑 Delete   Add Section ⌄

Manual Scheduling   🗑 Delete Section

☑ Allow manual scheduling

Start Date | Start Date | ⌄ | ⚙ No time information

Finish Date | Finish Date | ⌄ | ⚙ No time information

Milestone Date | None | ⌄ |

☐ Use sprint dates for manual scheduling

☐ Prefer sprint dates over manual start and finish dates

☑ Use Resolution Date as the Finish Date

Position a resolved issue to finish at its Resolution Date, unless it is manually scheduled.

To learn more about manual scheduling, see Manual Scheduling(see page 91).

5.3.2.4 Dependencies

You can set up custom link types to be used with each type of dependency within your slice. To set a default link type for a dependency type, check the **Favorite** box.

Gantt Docs

🗃️ General	
🗓️ Scheduling	
🔗 Dependencies	
👥 Resources	
✏️ New Slice	
✖️ **Project A**	

Project A ⬤ Active 🗑️ Delete **Add Section** ⌄

JQL ⌄ `Project = "Project A"` ✅

Dependencies 🗑️ Delete Section

☑️ Track dependencies

Associate issue link type with dependencies:

Dependency Type	Link Type	Favorite	Actions
Finish to Start	blocks	☐	Remove
	depends on	☑️	Remove
	Add New Type ⌄		
Finish to Finish	Add New Type ⌄		
Start to Start	Add New Type ⌄		

To learn more about using dependencies, see Working with Dependencies.(see page 38) To learn more about configuring dependencies, see Dependencies(see page 94).

> ⚠️ If you are linking two issues with different dependency link types (because one or more issue is part of a slice), the link types of the originating issue will be used.

5.3.2.5 Resource Assignment

You can set a unique resource attribute, which is used to assign resources to tasks.

Gantt Docs

🗃️ General	
🗓️ Scheduling	
🔗 Dependencies	
👥 Resources	
✏️ New Slice	
✖️ **Project A**	

Project A ⬤ Active 🗑️ Delete **Add Section** ⌄

JQL ⌄ `Project = "Project A"` ✅

Resource Assignment 🗑️ Delete Section

Attribute | Assignee ⌄ |

A single resource will be automatically assigned to a task, based on the value in the selected Jira field or Structure attribute.

To learn more about resource assignment, see Resources(see page 97).

5.3.2.6 Task Settings

Task Settings allows you to specify how resources are allocated for tasks and set custom leveling(see page 63) priorities.

Gantt Docs   ✕

| | Project A   ⬤ Active   🗑 Delete | Add Section ⌄ |

   ✎ General
   🗓 Scheduling
   🔗 Dependencies
   👥 Resources

   ✏ New Slice

   ◓ **Project A**

Task Settings   🗑 Delete Section

Max. Units Attribute | Store in Gantt chart   ⌄ |

Maximum number of resource units that can be assigned to a task. The value is based on the selected Jira field, Structure attribute or is stored in the Gantt chart. Click the task and enter a new value into Max. Units to change it.

Default Max. Units* | 1 |

Default is used if no value is specified in the Task Details Panel.

Leveling Priority | Store in Gantt chart   ⌄ |

Priority used for resource leveling. Tasks with higher priority will be scheduled earlier.

Default Leveling Priority* | 0 |

Default is used if no value is specified in the Task Details Panel.

To learn more about task settings, see Resources(see page 97)

5.3.2.7 Appearance

You can create a custom color scheme for each slice, under the **Appearance** section.

The color scheme you select will be applied to all issues or milestones that match the slice criteria.

> ⓘ Slices are the only way to set up custom color schemes.

5.3.2.8 Item Behavior

Item Behavior allows you to specify the type of item an issue will be displayed as within your Gantt chart.

You can choose from the following options:

- **Default Configuration** - If this option is selected (default), issues matching the slice criteria will be displayed based on the default configuration.
- **Group** - This will display matching issues as groups(see page 94), containing all their sub-issues.
- **Milestone** - This will convert matching issues into milestones and place them in the chart at their Due Dates. *Note: The Due Date will be calculated automatically, unless one is manually set.*

- **Task** - This will display matching issues as task bars. This can be useful if you have selected Grouping for your general configuration and want to display specific parent issues as task bars instead of groups - for example, you may want to display Epics as task bars, but Stories with sub-issues as groups.
- **Do Not Show** - This will remove the issues from your Gantt chart.

5.3.3   Removing a Slice

You can remove a slice from your configuration by deactivating it or deleting it.

5.3.3.1   Deactivating a Slice

You can turn a slice on or off with the **Active** toggle next to the slice name. Inactive slices will remain in your slice list (in case you want to reactivate them later), but will not affect your Gantt chart.
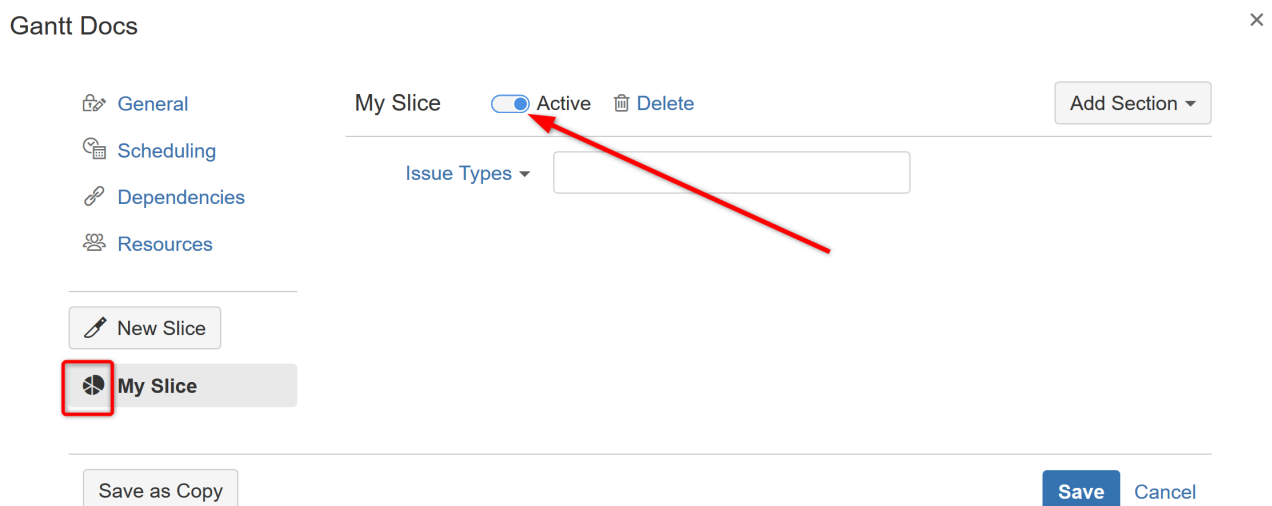
When a slice is active, the pie icon beside its name is filled in . When the slice is inactive, the pieces are empty .

5.3.3.2   Deleting a Slice

To delete a slice, click the trashcan icon or the **Delete** text beside it.

5.3.4   Order of Operation

If you have more than one slice created for a configuration, Structure.Gantt will apply slices in the order they appear, from top to bottom.

Once a slice has been applied to an issue, no other slice can affect it. If you need to apply a different slice first, move it up within the list.

Let's look at an example. We have three slices:

- **Purple Epics** - makes all epics appear purple.
- **Project A Resources** - specifies that for issues in Project A, the Team attribute should be used for assigning resources.
- **Orange Tasks** - makes all tasks orange.

In your chart, the following will occur:

1. All epics will appear purple.
2. The remaining issues from Project A will be assigned resources based on the Team attribute. Since the Purple Epics slice was already applied to the epics in Project A, this slice will not affect them - epics from Project A will be assigned resources based on the standard resource configuration.
3. All tasks, except those from Project A, will appear orange. Tasks from Project A will appear the default color, because the previous slice was already applied to them.

If you need a specific slice applied first, move it up the list. For example, to use the Team resource attribute for Project A epics, you would have to move the Project A Resources slice above the Purple Epics slice. If you wanted Project A tasks to be orange, you would need to move the Orange Tasks slice up.

5.3.4.1 Rearranging Slices

To move a slice up or down within your list, use the Drag Bar next to the slice's name.
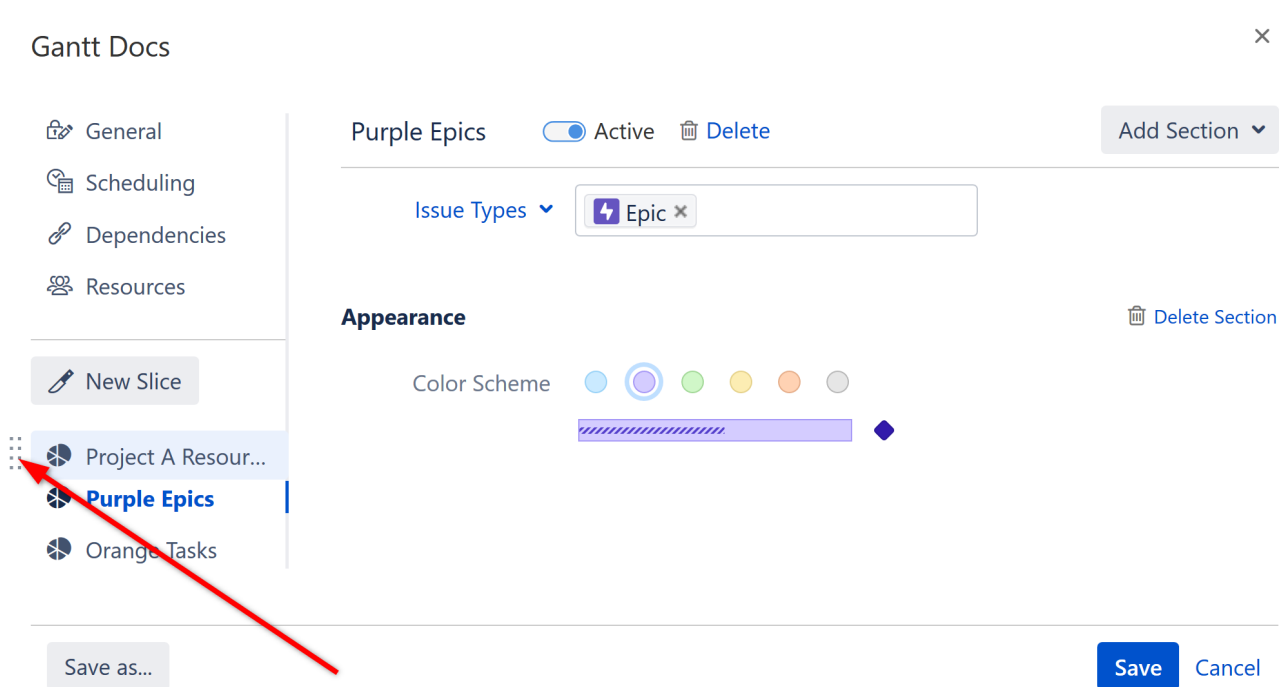
5.4 Managing Gantt Configurations

- Copy Configuration(see page 116)
- Deleting Gantt Configurations(see page 118)
- Charts and Configurations Permissions(see page 119)

5.4.1 Copy Configuration

If you need two or more similar (but different) configurations, you can start by creating a copy of an existing configuration.

5.4.1.1 Create an Exact Copy

If you want to create an identical copy of an existing configuration, open the Gantt Chart Settings (see page 83)screen and click **Manage configurations**.

Gantt chart Settings

Edit the options below to configure Gantt chart for this structure.

Project Start Day

Start Day * | 2018-09-25

Project Start Day defines the starting point for automatic scheduling.

Gantt chart Configuration

Configuration * | Gantt Docs ▾ | Edit

Gantt Configuration defines scheduling, dependencies and resource settings.

Manage configurations

Find the configuration you want to copy, open it's Actions menu (**…**) and select **Copy**.

Gantt chart Configurations   Create New Configuration

Active	Name	Actions
●	**Gantt Docs** Gantt configuration for structure "Gantt Docs"	Edit •••
○	**Gantt Q&A**	Copy Delete
○	**Great New Name** Custom configuration for perfect Gantt charts!	Edit •••

This will create an exact copy of the original configuration, which you can rename and customize as necessary, without affecting the original.

5.4.1.2 Create a Copy with Changes

You can also open an existing configuration, update it and save your changes as a new configuration.

To do this, open the original configuration in Gantt configuration(see page 86) and make any necessary changes. Instead of clicking the **Save** button, click **Save as Copy**.

Give the new configuration a unique name (1). If you want to switch to the new configuration, check the **Make new config active** checkbox (2); otherwise, leave it blank.

Any changes you made from the original configuration will now be part of the new configuration. The original configuration will remain unchanged.

5.4.2 Deleting Gantt Configurations

You can delete an existing Gantt configuration from the Manage Configurations dialog (see Gantt Configuration in Details(see page 86)).

To delete a configuration:

- You must be the owner of the configuration or a Jira administrator
- You must have Control access to all the structures that are using the configuration

- If the configuration is in use, you will need to select a replacement configuration before deleting it

> (i) When replacing an in-use configuration, the replacement configuration must have the same visibility as the one being removed. For example, you can only replace a *public* configuration with another *public* configuration.

5.4.3 Charts and Configurations Permissions

5.4.3.1 User Permissions

Currently there are no dedicated permission settings in Structure.Gantt. The chart has the same permission settings as the structure it is based on.
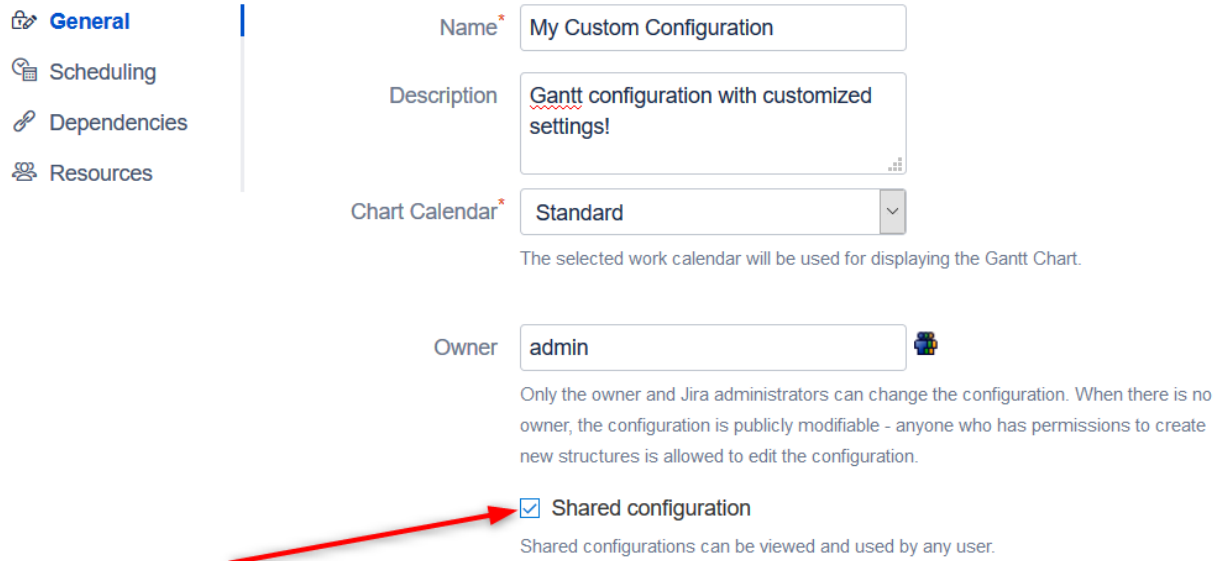
- Users with View access level can only view the Gantt chart.
- Users with Edit access level can work with the task bars in the chart and make changes.
- Users with the Structure Control access level can change the Gantt Chart settings and manage Gantt configurations.

All standard Jira permissions are applied – you need Edit Issues permission to change fields, create links, and so on.

5.4.3.2 Sharing Configurations

Gantt Chart configurations have their own permissions logic. By default, the configurations you create are not shared with anyone else, so they are not visible in the available configurations list for other users. If you use a non-shared configuration to build a chart for a shared structure, other users will still be able to work with the chart (based on the structure permissions), but will not be able to see this configuration.

To share a configuration, check the **Shared configuration** box under the Gantt configuration General settings.

Once shared:

- The configuration will be visible to all users in the read-only mode.
- If there is no owner specified, any user will be able to edit the configuration.
- If you want to delete a configuration which is used in at least one chart, you will need to select another configuration to be used in its place. See Deleting Gantt Configurations(see page 118) for more details.

> ⓘ Jira admins can see and edit all configurations.

6 Administrator's Guide

6.1 System Requirements and Installation

Structure.Gantt is an extension for the Structure app, so in order to use it, you will need to install Structure first.

Structure.Gantt 1.2 requires Structure 4.6 or later and supports Jira 7.2 or later.

You can install both Structure and Structure.Gantt via the Add-On Manager just like any other add-on. No additional configuration is required. As soon as you install Structure.Gantt, you will be able to build your first Gantt chart(see page 121).

6.2 Enterprise Deployment

6.2.1 Performance

Structure.Gantt is a fairly complex product that works on top of Jira and Structure platforms. It is also a very flexible product, just as Structure app is, so a lot of choices can be made by the user – like how much data is in one Gantt chart and where this data comes from.

Therefore, the performance impact of using Structure.Gantt depends on a number of factors:

- The number of issues in the structure (the single most important factor).
- Using Jira's calculated fields as the source of attributes (for example, Start Date). This is rarely the case, but it may have massive performance impact.
- Structure.Gantt CPU, memory footprint and its optimizations.
- Structure and Jira performance.
- Lucene index performance.
- Database performance (simple data retrieval queries).

Performance impact from a single Gantt Chart does not depend on the total number of issues in JIRA, total number of Gantt charts, or total number of users. The amount of consumed memory will depend on the number of concurrent users working with Structure.Gantt and with Structure, as the products maintain caches of per-user data.

6.2.1.1 Performance Target: 10,000 issues

As of version 1.0, we are targeting Structure.Gantt to work well on configurations with 10,000 issues in one structure / Gantt chart. Such configurations show a reasonable amount of CPU and memory impact, as well as good responsiveness for end-users.

We are also testing Structure.Gantt on structures with 100,000 issues. At the moment, we do not recommend having such large configurations, as the recalculation of the Gantt Chart may take up to 30 seconds, during which Structure.Gantt extracts a lot of information from the Jira database and Lucene index.

6.2.1.2 Testing for Potential Impact

When testing Structure.Gantt for potential performance impact, watch out for the following indicators.

- Memory consumption, which may be influenced by the Gantt configuration
- Frequency of Lucene index queries
- Frequency of database retrieval queries

6.2.2 Security and Data Access

When developing Structure and Structure.Gantt, we follow the best practices and respect the settings that are configured in Jira.

- Jira permissions are respected. All changes that are made through Structure.Gantt are executed in the context of some Jira user account, and with respect to that user's permissions. For example, if a user does not have permissions to create issue links, that action will not be possible through Structure.Gantt.
- Jira issue security and browsing permissions are respected. If a user does not have the permissions to see a particular issue, they will not be able to see it in Structure.Gantt.
- Application security is continuously checked to make sure our products do not introduce XSS or other vulnerabilities to Jira.

6.2.2.1 Caching of Issue Access

For the sake of performance, Structure and Structure.Gantt cache the results of access checks (whether a particular user has access to a particular issue). The cache is invalidated if the issue is changed and every 5 minutes. The cached result can potentially be used when some other factor has changed and the access has changed as well.

This means that if a user *gains* access to an issue through any means other than setting the issue's Security Level, Structure apps might still hide that issue from the user for up to 5 minutes. The same happens if the user *loses* access – Structure apps may still show that issue's data for up to 5 minutes.

6.2.3 Limiting Access to Gantt Charts

Structure.Gantt works on top of Structure app. In particular, a Gantt chart is created based on a structure. Therefore, by limiting who has access to Structure app and who can create structures, a Jira admin can control the exposure of the users to Structure apps.

See Gradual Deployment[20] in the Structure documentation for more details on how to gradually introduce the app to the system.

6.3 Confluence Configuration for Gadgets

Before users can add the Structure.Gantt gadget to Atlassian Confluence, specific configuration steps must be performed by the Confluence administrator.

To enable the Structure.Gantt gadget in Confluence:

1. Connect your JIRA with your Confluence using Application Links[21]

---

[20] https://wiki.almworks.com/display/structure/Gradual+Deployment
[21] https://confluence.atlassian.com/adminjiraserver071/using-applinks-to-link-to-other-applications-802592232.html

2. Add the Structure.Gantt gadget to the list of External Gadgets:
   a. Go to your Jira dashboard, click **Add gadget** | **JIRA** | **Load all gadgets**
   b. Locate the Structure.Gantt gadget, click **Show XML link** and copy it
   c. Open Confluence and click **Administration** | **General configuration** | **External Gadgets**
   d. Paste the copied link in the "Gadget Specification URL" field and click **Add**

6.4 Resource Leveling Troubleshooting

Jira admins can view (and stop, when necessary) current leveling operations by going to **Administration** | **Structure** | **Structure.Gantt** | **Resource Leveling.**

The resource leveling screen lists all in-progress leveling operations on the Jira instance and how far along they are in their progress. To cancel a leveling operation, locate it in the list and click **Stop**.

6.4.1 Advanced Configurations

Several additional configurations can be set using the Structure Dark Features and Fine Tuning Interface, including:

- Changing permission levels for Resource Leveling
- Setting the maximum number of tasks that can be leveled
- Allocating additional (or fewer) system resources to Resource Leveling
- Disabling Resource Leveling

For more information, see Advanced Configurations for Structure.Gantt.

6.5 Advanced Configurations for Structure.Gantt

The following custom configurations can be set using the Structure Dark Features and Fine Tuning interface[22].

---

22 https://wiki.almworks.com/display/structure/Advanced+Configuration

6.5.1 Scheduling and Time Limits

Structure.Gantt has some facilities that prevents it from locking the Jira instance in the event that scheduling operations are taking too much time. By default, we assume that most charts calculations should take no more than 5 minutes, and Structure.Gantt will stop performing any further scheduling for a particular structure if the calculation exceeds this time. In this case, a message such as this will be shown:

These situations are treated as abnormal and usually mean that the Structure.Gantt scheduling algorithm got stuck for some reason, so we highly recommend that you contact our support team[23] to further investigate the cause. In some rare cases, tuning of these facilities may be needed.

Property	Explanation	Default value
`structure.gantt.settings.schedulingTimeLimit`	This property declares scheduling timeout (in seconds), i.e. maximum time Structure.Gantt can perform scheduling calculations for a single chart. (The default value is based on our measurements for structures with 100,000 issues. It should be sufficient for most cases, but it can be configured to a lower or higher value.)	300 seconds
`structure.gantt.settings.excludedFromScheduling`	This property holds a comma-separated list with the IDs of the structures that have Gantt chart calculations turned off. Any structures listed here will automatically be excluded when Gantt scheduling takes more time than is declared by the *structure.gantt.settings.schedulingTimeLimit*.	Empty
`structure.gantt.settings.updateTimeLimit`	This property declares an additional timeout when waiting to apply a change made by the user on a Gantt chart. Recommended values are up to several minutes.	120 secs

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23 https://support.almworks.com/

Property	Explanation	Default value
`structure.gantt.settings.attributesTimeLimit`	This property declares the timeout when waiting for Gantt attributes, in order to show them in the Structure grid. Structure.Gantt will try to get the attributes within the declared time and then display empty values if the operation fails. As soon as the chart is finished calculating, the actual values in the grid should refresh automatically. Recommended values are from 30 secs to several minutes.	30 secs
`structure.gantt.settings.pollTimeLimit`	The timeout for poll to wait for the ability to calculate the update. This timeout ensures Structure.Gantt will not hold update requests and threads for an unlimited amount of time. It is recommended to keep this value less than 1 minute.	10 secs

6.5.2 Resource Leveling Configurations

Property	Explanation	Default value
`structure.gantt.settings.leveling.requireControl`	When **false**, Edit permissions are required to start or reset Resource Leveling. When **true**, Control permission is required.	false
`structure.gantt.features.resourceLeveling`	Set to **false** to disable Resource Leveling, cancel all leveling calculations and delays, and remove any controls related to Resource Leveling from the UI.	true
`structure.gantt.settings.leveling.taskLimit`	Determines the maximum number of tasks that can be leveled by a single Leveling session.	5,000

Property	Explanation	Default value
`structure.gantt.settings.leveling.threadPoolSizeFactor`	Maximum number of threads allocated for Resource Leveling calculations on every node. The number of threads is determined by the formula `NUMBER_OF_CPU_CORES * threadPoolSizeFactor` and by default means that Resource Leveling may use no more threads than half of the available CPU cores, i.e. for a 4 CPU core machine, Resource Leveling should use no more than 2 threads for calculations. Setting this value to `0` will guarantee Resource Leveling will occupy only a single thread on any node.	0.5

7 FAQ

- Does Structure.Gantt support Jira Data Center?
- Does Structure.Gantt support Portfolio for Jira hierarchy?
- I have increased the capacity (Units) of the resource, but the task still takes the same amount of time to complete

7.1 Does Structure.Gantt support Jira Data Center?

Both Structure and Structure.Gantt support Jira Data Center.

7.2 Does Structure.Gantt support Portfolio for Jira hierarchy?

The work breakdown structure used for building your Gantt chart is created using the Structure app functionality, which supports Parent links used in Portfolio plans.

You can visualize Parent links using either Extend or Group generators of Portfolio type when building your structure.

7.3 I have increased the capacity (Units) of the resource, but the task still takes the same amount of time to complete

This can happen if the Maximum Units value for the task is set to a number smaller than the resource capacity. To check and/or update the task's Maximum Units, click the task in the Gantt chart and locate the **Max. Unit** value in the Task Details Popup.
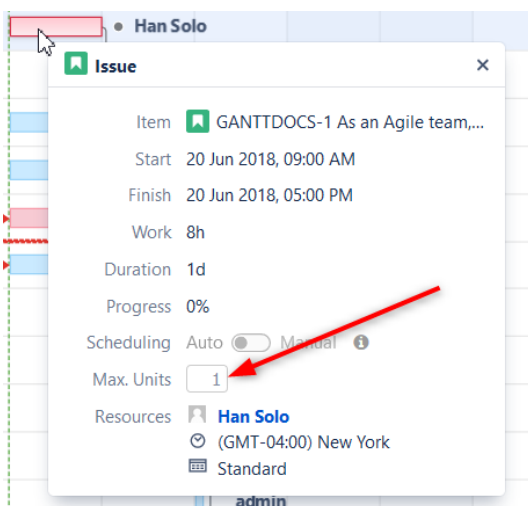
This Max. Units value defines the maximum number of resource units that can be allocated for the task.

- To learn more about setting an individual task's Maximum Units, see Gantt Chart Elements
- To learn about setting the default Maximum Units value, see Gantt Configuration | Resources.

8 Release Notes

8.1 Structure.Gantt 2.0 Release Notes

> ⓘ **6th of September, 2019**
> Structure.Gantt 2.0 introduces Resource Leveling and Baselines, as well as other improvements and bug fixes.

Download App[24]
Structure.Gantt on Atlassian Marketplace[25]
Try Structure.Gantt at Our Demo Server - No Installation or Sign-up Required[26]

8.1.1 Version Highlights

- Structure.Gantt becomes a paid app
- Resource Leveling
- Baselines
- Fix Version markers for Gadget
- Other improvements and bug fixes

8.1.2 Changes in Detail

8.1.2.1 Structure.Gantt becomes a paid app

Since its introduction, we have continued to invest in Structure.Gantt — continuously adding new capabilities while also enhancing many of the early features. We feel that with the release of 2.0 we introduce a number of features, which make our Gantt offering uniquely competitive. We believe this warrants a fair price that will enable us to continue investing in its development.

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24 https://wiki.almworks.com/display/gantt/Download
25 https://marketplace.atlassian.com/plugins/com.almworks.structure.gantt/server/overview
26 http://alm.works/gantt-demo

You can see the new pricing on the Atlassian Marketplace[27].

8.1.2.2 Resource Leveling

Resource Leveling allows you to automatically resolve overallocations for a single resource or group of resources. When run, Resource Leveling identifies overallocation and applies Leveling Delays to tasks in order to resolve it.
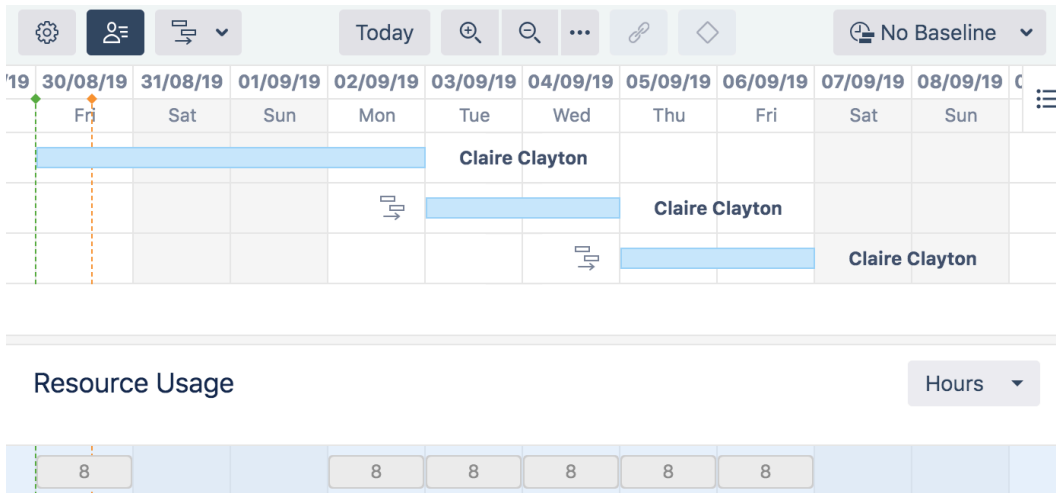
Documentation: R(see page 31)esource Leveling(see page 63)

8.1.2.3 Baselines

Baselines create a snapshot of the schedule at a specific time, which can then be visualized alongside the current schedule, making it easy to identify differences between a proposed schedule and a project's actual progress. Baselines can be added to the Structure.Gantt gadget and included in a PDF or SVG export.
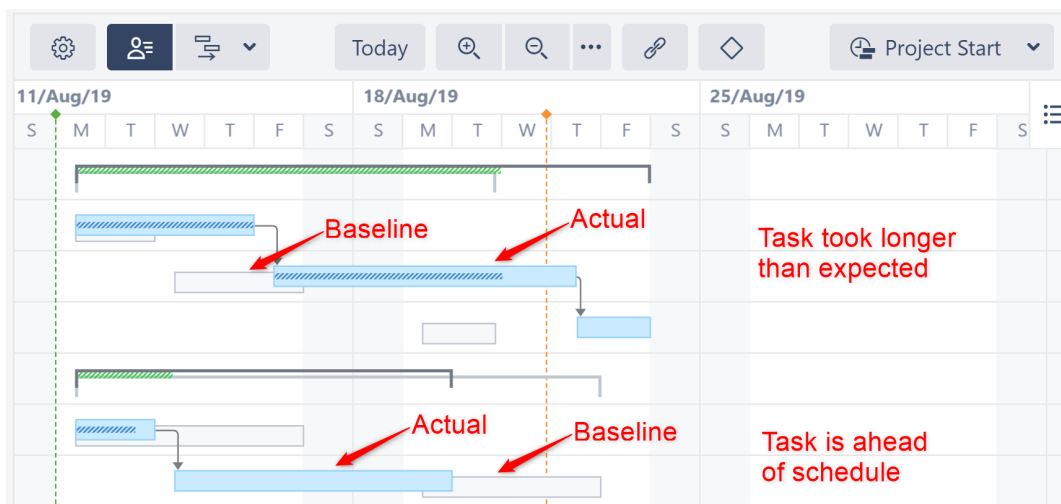
Documentation: B(see page 35)aselines(see page 58)

8.1.2.4   Fix Version Markers for Gadget

It is now possible to include Fix Version in the Structure.Gantt gadget, the same way it can be included when exporting your schedule.

Gantt chart Details
- ☑ Critical Path
- ☑ Progress
- ☑ Dependencies
- ☑ Chart Warnings
- ☑ Task Indicators
- ☑ Baseline delays
- ☑ Today Marker
- ☑ Project Start Day
- ☑ Fix Versions
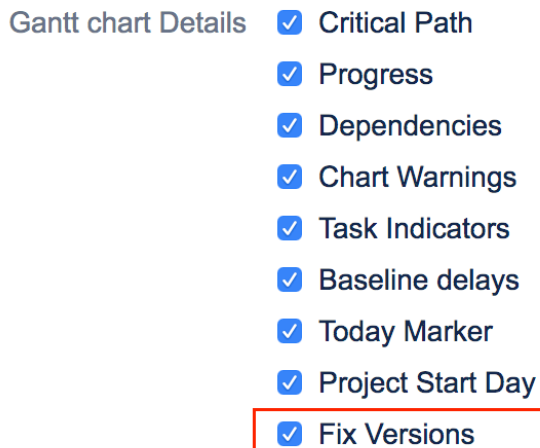
Documentation: Confluence Gadget

8.1.2.5   Notable Improvements and Fixes

- Changed: "Use Resolution Date as the Finish Date" option is now turned off by default for newly created configurations
- Changed: For Export and Gadget, Fix Version markers are now displayed expanded (if possible)
- Fixed: Tempo Teams and Team Roles are now properly displayed in the chart and resource list
- Fixed: Sprint markers weren't displayed properly when there was at least one sprint starting and finishing on the same day
- Fixed: JQL queries for Slices should be executed from the structure owner, rather than the current user
- Fixed: Gantt Progress was calculated incorrectly for hierarchies with loop markers
- Fixed: When a duplicate issue is assigned to both a task and a group at the same time, the assigned resource should not be removed
- Fixed: When a Formula returns a negative estimate, the Gantt chart should not disappear

8.1.3   Supported Versions

Structure.Gantt 2.0 requires Structure 5.5 or above.

We support all editions of Jira (Jira Core, Jira Software, Jira Service Desk), versions 7.6 or later. Jira Data Center is supported too.

8.1.4   Installation and Upgrade

If you already have production data from a previous version of Structure.Gantt, please back up your database or Jira before upgrading.

Please review your Gantt configurations after upgrading to check that your settings are correct.

8.1.5 Known issues

Below are a few known issues and non-obvious cases.

- If a Structure column is selected as the source for resource assignment formula, any changes made to this column after the resource list has been built will be ignored.
- User icons from external sites (like Gravatar) will be replaced with uniform user icons during PDF/SVG export.
- Quick filter functionality isn't working properly with the Filter by Resource action, so it is recommended that users avoid saving filters produced by this action.
- Structure.Gantt won't update estimates when Time Tracking Legacy mode is enabled.
- Leveling Delay is applied to Fixed Duration tasks. (Workaround: switch it to Auto scheduling and back to Manual scheduling to clear Leveling Delay.)
- Resources may disappear when Tempo Teams are used as resources and these teams' permissions are restricted for some chart owners. This only affects Tempo Timesheets versions prior to 10.3.0.

8.1.6 Enterprise Deployment Notes

Structure.Gantt 2.0 introduces the Resource Leveling feature that can be important for large installations and Data Center instances.

8.1.6.1 Resource Leveling

Resource Leveling is an on-demand process to automatically fix over-allocations. It is a CPU- and memory-consuming operation, running in the background for periods starting from a few seconds to dozens of minutes. It is sensitive to structure size, number of resources used and number of over-allocations in the particular schedule.

Taking the on-demand nature of Resource Leveling into account, it is difficult to predict how it will impact the performance of a particular installation, because it depends on how many Gantt-enabled structures are there, how large they are and how often users will need to run Resource Leveling for their charts. Being run in parallel, Resource Leveling may have a huge impact on an instance's performance, and as a safeguard we've added several configurable properties:

- By default, Resource Leveling is limited to 5000 tasks per execution, i.e. every time a user starts a Resource Leveling, it will fail if number of tasks exceeds this value. It is not recommended to make this value very large, since it may cause a Resource leveling to run for a very long period of time (hours). It is highly recommended to not increase it without a real need, and, even then, keep it lower than 10000. Please see the `structure.gantt.settings.leveling.taskLimit` property on the Advanced Configurations for Structure.Gantt(see page 123) page for more information.
- Another variable that is reserved for tuning Resource Leveling performance is the number of threads it can occupy at a node at any given moment of time. This one is configured using the `structure.gantt.settings.leveling.threadPoolSizeFactor` property (see Advanced Configurations for Structure.Gantt(see page 123)). By default, the factor is set to 0.5, i.e. the number of threads Resource Leveling can use for calculations cannot exceed half of the number of CPU cores available at any node.
- It is also possible to completely disable the Resource Leveling feature. See the `structure.gantt.features.resourceLeveling` property on the Advanced Configurations for Structure.Gantt(see page 123) page for more information.

8.1.6.2 Testing on a Staging Environment

For high load installations, we advise testing and running Resource Leveling on the most popular Gantt charts and adjusting Resource Leveling using the properties described above.

The usual load and stress testing are also recommended.

> ⓘ Should you have any questions on Enterprise Deployment, let us know at support@almworks.com[28].

8.1.7 Structure.Gantt 2.0.1 Release Notes

> ⓘ **25th of September, 2019**
> Structure.Gantt 2.0.1 adds Atlassian Jira 8.4 compatibility.

Download App[29]
Structure.Gantt on Atlassian Marketplace[30]

8.1.7.1 Patch Release

Starting from this version, Structure.Gantt is compatible with Atlassian Jira 8.4.

8.1.7.2 Installation and Upgrade

Structure.Gantt 2.0.1 requires Structure 5.5 or above.

If you already have production data from a previous version of Structure.Gantt, please consider backing up your data before upgrading.

8.1.7.3 Enterprise Deployment Notes

Structure.Gantt 2.0.1 does not introduce changes that could affect performance. We advise you to perform the usual testing on a staging server.

8.2 Structure.Gantt 1.4 Release Notes

> ⓘ **5th of April, 2019**
> Structure.Gantt 1.4 introduces Agile planning, Fixed-duration tasks and the ability to export chart data as Structure attributes, as well as other improvements and bug fixes.

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28 mailto:support@almworks.com
29 https://wiki.almworks.com/display/gantt/Download
30 https://marketplace.atlassian.com/plugins/com.almworks.structure.gantt/server/overview

Download App[31]
Structure.Gantt on Atlassian Marketplace[32]
Try Structure.Gantt at Our Demo Server - No Installation or Sign-up Required[33]

> ⚠ Structure.Gantt will become a paid app beginning with release 2.0. However, we are offering 1.x users the opportunity to extend their free software license for 2 years, including free maintenance. To learn more about this offer and sign up for your free license, visit our Free License Request Page[34].

8.2.1 Version Highlights

- Agile planning
- Fixed-duration tasks
- Chart data as Structure attributes
- Percentage for resource allocation
- Agile Gantt Template
- Other improvements and important bug fixes

8.2.2 Changes in Detail

8.2.2.1 Agile planning

Starting with this version of Structure.Gantt, it is now possible to use sprint dates to schedule tasks:
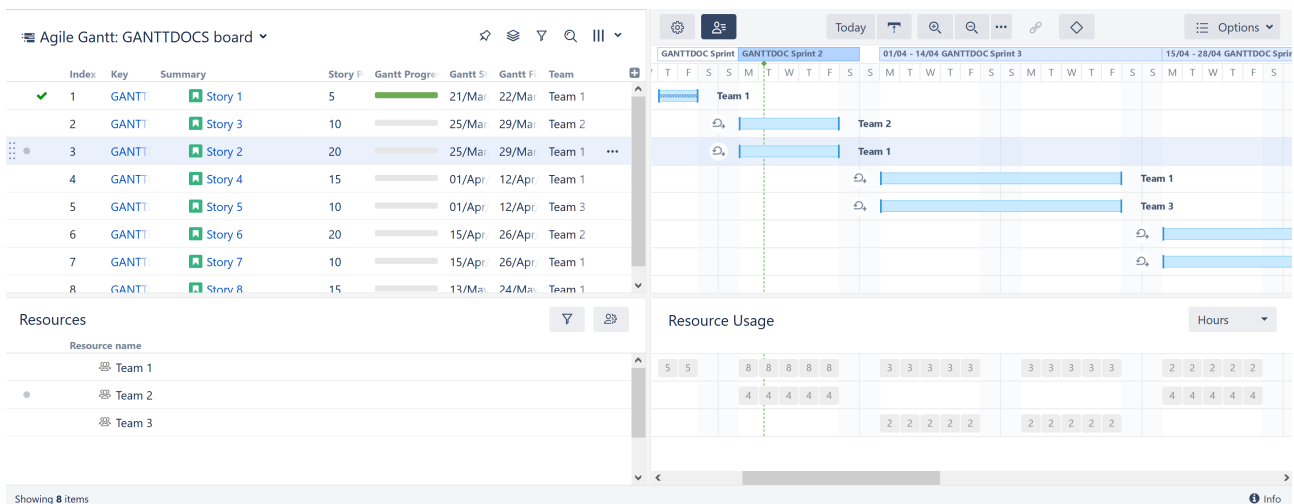
Tasks can be moved between sprints by drag and drop or by changing the sprint in the Task Details panel.

Documentation: Planning with Sprints(see page 31)

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31 https://wiki.almworks.com/display/gantt/Download
32 https://marketplace.atlassian.com/plugins/com.almworks.structure.gantt/server/overview
33 http://alm.works/gantt-demo
34 https://alm.works/free-gantt

8.2.2.2 Fixed-duration tasks

Tasks that are **scheduled by sprint dates** or **manually scheduled with both start and finish dates defined** now have work equally distributed across their duration. Adjusting the duration for these tasks will not affect their work (that can be adjusted separately in the Task Details panel or in Jira itself).

Documentation: Fixed Duration(see page 35)

8.2.2.3 Chart data as Structure attributes

Structure.Gantt data is now available to Structure. Gantt attributes can be represented in columns, used in formulas or used in transformations:

The following attributes are currently supported:

- Gantt Start Date
- Gantt Finish Date
- Gantt Milestone Date
- Gantt Progress
- Gantt Type

With more attributes to follow in future.

Documentation: Using Gantt Attributes in Structure(see page 78)

8.2.2.4   Percentage for Resource allocation

In addition to displaying the number of hours each resource is scheduled for during a set period of time, it is now possible to show the percentage of a resource's availability that is being used during that time. This can be particularly useful when trying to assess which resources are over- or under-allocated.

Documentation: Resources and Resource Usage(see page 55)

8.2.2.5   Agile Gantt Template

Using the new Agile Gantt Chart template, it is possible to create new charts with Agile Planning enabled by default with a several different types of hierarchies:

- Stories only
- Stories underneath of Epics
- Portfolio (requires Atlassian Portfolio to be installed) — with Initiatives above Epics
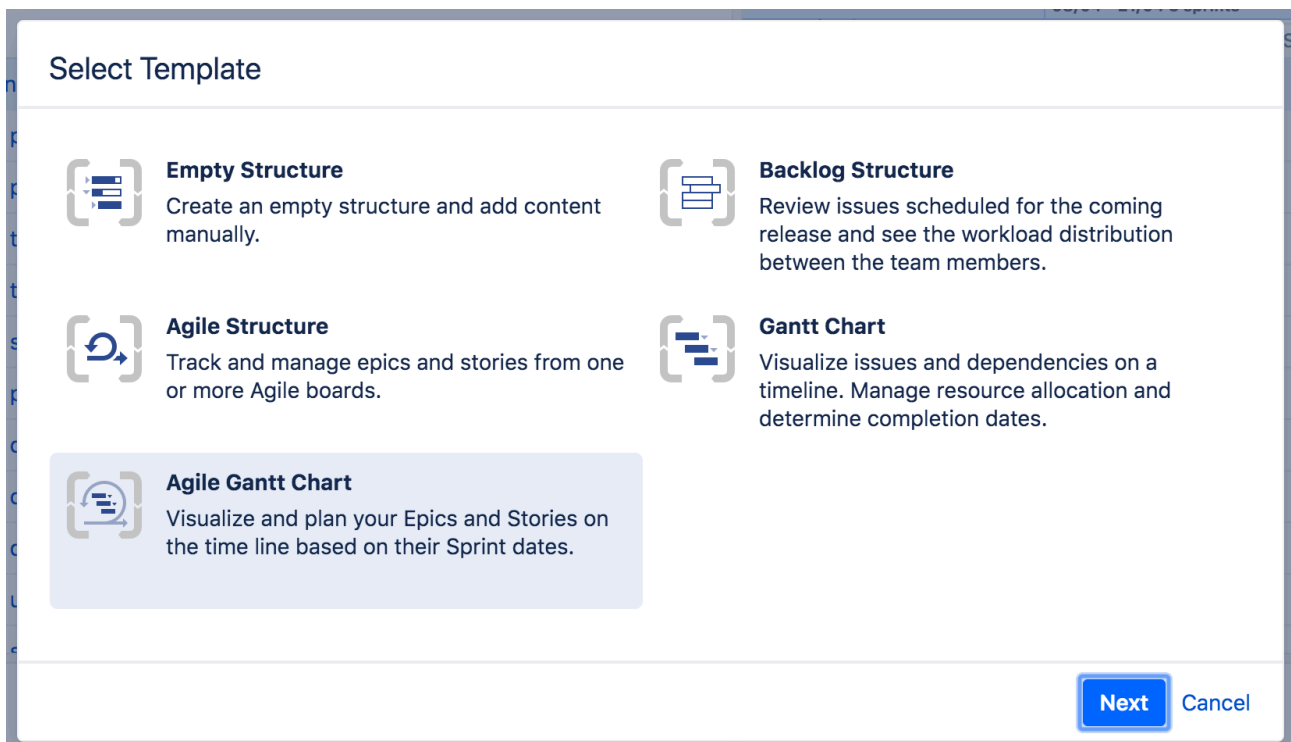
8.2.2.6 Notable Improvements And Fixes

- In addition to Story Points, it is now possible to use arbitrary values for task estimation, i.e. use any text or numeric fields for estimate values (see Work Estimates(see page 89))
- Starting from version 1.4, switching a task to an Automatic scheduling will not clear underlying fields and their values will be preserved (see Manual Scheduling by Start or Finish Date(see page 28))
- Tasks with both manual start and finish dates set are treated as fixed-duration tasks, i.e. changing of their duration will not change their work (see Fixed Duration(see page 35))
- For competed tasks, a checkmark indicator is shown; this is also applies to milestones backed by an issue (see Task Indicators(see page 52))
- It is now possible to open Slice settings right from the Task Details panel by clicking its name (only if user has the permission to view or edit the configuration)
- Jira date formats are now used across all Structure.Gantt UI
- Fixed: "Login and Approve" form should be correctly shown now for a Structure.Gantt gadget being added to a Confluence page
- Fixed: Resources won't be shown anymore for inaccessible issues

8.2.3 Supported Versions

Structure.Gantt 1.4 requires Structure 5.3 or above.

We support all editions of Jira (Jira Core, Jira Software, Jira Service Desk), versions 7.6 or later. Jira Data Center is supported too.

8.2.4 Installation and Upgrade

If you already have production data from a previous version of Structure.Gantt, please back up your database or Jira before upgrading.

Please review your Gantt configurations after upgrading to check that your settings are correct.

8.2.5 Known issues

Below are a few known issues and non-obvious cases.

- If a formula is selected as the source for resource assignment, any changes made to this formula after the resource list has been built will be ignored. For example, if your formula had a variable assigned to one field and you reassign that variable to another field after the resource list has already been built, the resource list will not be updated to reflect this change.
- User icons from external sites (like Gravatar) will be replaced with uniform user icons during PDF/SVG export.
- Quick filter functionality isn't working properly with the Filter by Resource action, so it is recommended that users avoid saving filters produced by this action.
- Structure.Gantt won't update estimate when Time Tracking Legacy mode is enabled
- If both Time Tracking and Custom estimate is enabled for the task and estimate is cleared through the Task Details panel, it will clear the both Original Estimate and Custom Estimate fields; undoing that operation will set only the preferred one.
- Kanban boards can be selected along with Scrum ones while creating Agile Gantt.

8.2.6 Enterprise Deployment Notes

Structure.Gantt 1.4 introduces several features that can be important for large installations and Data Center instances.

8.2.6.1 Agile Planning

For Agile Planning to work, Structure.Gantt needs to fetch all Agile boards for the issues contained in the structure, and then fetch all the sprints from these boards. That data is used for visualizing sprints on the timeline and for scheduling. In a particularly large structure, with issues from many boards, that could lead to an increased load on the server and increased latency in calculating the Gantt chart.

8.2.6.2 Chart Data as Structure Attributes

We have exposed the calculated Gantt values (calculated start/finish dates) as Structure "attributes", which makes it possible to show them in the Structure grid and use in formulas.

It is important to keep in mind that this data depends on the calculated Gantt schedule. Requesting this value for even a single item would require the whole Gantt chart to be calculated – even if you're looking at a Single Grid layout and Gantt is not shown. The results of the calculations are cached, of course, so once it has been completed, the values for other items will be immediately available – until Structure.Gantt registers an issue update that would require a recalculation of the chart.

8.2.6.3 Testing on a Staging Environment

Taking this into account, in case you have a large (10,000 issues or more) structure with a configured Gantt chart, we would suggest to test the following scenarios on a staging environment, before upgrading the production instance:

- Open a large structure that has a configured Gantt chart. Go to the Gantt configuration and enable **Use sprints for manual scheduling** option, then enable **Prefer sprints over manual start and finish** feature. Prepare a timer, click OK and measure how long it takes before the updated Gantt chart appears.
- Add a couple of Structure.Gantt columns (Gantt.Start or Gantt.Finish) to this structure. Scroll the Structure grid down and up, noting the delay between the scrolling and the data being loaded and shown in the grid.
- Add a "Text Attribute" transformation to the structure (note: **not** a grouper inside the structure – a transformation[35]). Select "Gantt.Finish" attribute as the grouping value. (You can also use a formula, for example, to group by the week of the finish date!) Note how much time it will take before the transformation is applied. Then proceed to change several issues in a way to affect the chart schedule, for example, change a dependency or a duration of a task. Note how quickly changes are applied and the structure is refreshed.

Watch the log files for errors and warnings while running these experiments. If you are not happy about the speed of the updates or the server load, please let us know! We might be able to suggest wats to improve the configuration and speed up Structure and the Gantt chart.

The usual load and stress testing are also recommended.

> ⓘ Should you have any questions on Enterprise Deployment, let us know at support@almworks.com[36].

8.2.7 Structure.Gantt 1.4.1 Release Notes

> ⓘ **29th of May, 2019**
> Structure.Gantt 1.4.1 is a patch release based on Structure.Gantt 1.4.0

Download App[37]
Structure.Gantt on Atlassian Marketplace[38]

> ⚠ Structure.Gantt will become a paid app beginning with release 2.0. However, we are offering 1.x users the opportunity to extend their free software license for 2 years, including free maintenance. To learn more about this offer and sign up for your free license, visit our Free License Request Page[39].

8.2.7.1 Patch release

This is a patch release based on version 1.4.0. We have addressed the following issues:

- Fixed: Gantt.Progress Structure attribute should not be affected by Structure transformations

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35 https://wiki.almworks.com/display/structure/Using+Transformations
36 mailto:support@almworks.com
37 https://wiki.almworks.com/display/gantt/Download
38 https://marketplace.atlassian.com/plugins/com.almworks.structure.gantt/server/overview
39 https://alm.works/free-gantt

- Fixed: Gantt attributes should be updated on structure hierarchy changes (indent and outdent)
- Fixed: Structure.Gantt gadget was not working properly for structures with a grouping by a component or version
- Fixed: Default configuration should have dependencies switched off if there is no Blocks link type in the system
- Fixed: Structure.Gantt gadget should work correctly in Jira 8.2 and IE11
- Fixed: Scheduling should be paused for a structure if the schedule calculation takes more than 5 minutes to complete, in order to avoid excessive resource usage. Please refer to Structure.Gantt Troubleshooting(see page 138) for more details.

8.2.7.2 Installation and Upgrade

Structure.Gantt 1.4.1 requires Structure 5.3 or above.

If you already have production data from a previous version of Structure.Gantt, please consider backing up your data before upgrading.

8.2.7.3 Enterprise deployment notes

With Structure.Gantt 1.4.1 we're introducing a new feature that should prevent excessive resource usage for huge Gantt charts or charts that are unable to complete the schedule calculation in a reasonable time. By default, schedule calculation will be paused for a structure if it exceeds 5 minutes. Normally scheduling should not exceed 5 minutes for very large structures (scheduling of structures with 100k issues takes around 2.5 minutes to calculate), but since we are unable to check all possible configurations we've made this timeout configurable. Please, refer to Structure.Gantt Troubleshooting(see page 138) for details on how to adjust it.

To ensure this timeout does not affect your charts, it is recommended to perform the following operations at the staging environment before updating production servers:

- Choose several large structures with configured Gantt charts
- For every structure from the list, open it, switch layout to Gantt chart and wait it to fully load. Then perform regular operations like adding new tasks, adding/removing dependencies, adjusting task positions or adjusting the configuration
- Observe results and ensure that charts are calculated and visualized normally

In the event that you receive a "Scheduling has been paused" message, the corresponding timeout may need to be increased.

> ⓘ Should you have any questions on Enterprise Deployment, let us know at support@almworks.com[40].

8.3 Structure.Gantt 1.3 Release Notes

> ⓘ **14th of November, 2018**
> Structure.Gantt 1.3 introduces Sliced configurations, ability to specify several Link Types per Dependency and a new "Filter structure by Resource" action, as well as other improvements and bug fixes.

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[40] mailto:support@almworks.com

Download App[41]
Structure.Gantt on Atlassian Marketplace[42]
Try Structure.Gantt at Our Demo Server - No Installation or Sign-up Required[43]

8.3.1 Version Highlights

- Slice-based configurations
- Ability to specify several Link Types per Dependency
- Filter structure by Resource action
- Other improvements and important bug fixes

8.3.2 Changes in Detail

8.3.2.1 Slice-based Configurations

It is now possible to define custom chart behaviors for different sets of issues. By creating separate "slices" for specific issue types (or issues that match a JQL query), you can change the appearance of specified issues, alter their behavior within the chart, or remove them from the chart completely.

Slices allow you to color-code issues based on their project, utilize a different set of resources for certain types of issues, define unique dependency configurations and more.

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41 https://wiki.almworks.com/display/gantt/Download
42 https://marketplace.atlassian.com/plugins/com.almworks.structure.gantt/server/overview
43 http://alm.works/gantt-demo

Documentation: Slice-based Configurations(see page 104)

8.3.2.2   Specify Multiple Link Types per Dependency

Structure.Gantt now allows you to visualize dependencies even if they are represented by multiple link types in Jira.

Using Gantt configuration, you can select which link types are supported for each type of dependency. When you create new dependencies in your chart, you can choose from the available link types – or you can configure favorite link types to streamline the process.

Dependency Type	Link Type	Favorite	Actions
Finish to Start	blocks	☐	Remove
	depends on	☑	Remove
	Add New Type ▼		
Finish to Finish	Add New Type ▼		
Start to Start	Add New Type ▼		
Start to Finish	Add New Type ▼		

Documentation: Dependencies(see page 94)

8.3.2.3   Filter by Resource

It is now possible to filter your structure and Gantt chart based on a specific resource, making it easier to plan work for a particular resource, resolve conflicts and address overloads.

To filter by a specific resource, simply highlight the resource's name in the Resources panel and click the Filter button.

Documentation: Resource Management(see page 54)

8.3.2.4 Notable Fixes and Improvements

- Ability to copy existing configurations
- Zoom using the mouse wheel
- Resource maximum units can now be based on a Jira or Structure attribute
- Start Date can be manually adjusted by dragging the left side of a task bar (previously, this was only supported for Finish Date)
- Navigate directly from a Gantt gadget to the corresponding Gantt chart, with a new "Open" link
- Fixed a scheduling issue in which some tasks weren't scheduled and "Unexpected error" message appears

8.3.3 Supported Versions

Structure.Gantt 1.3 requires Structure 5.1 or above.

We support all editions of Jira (Jira Core, Jira Software, Jira Service Desk), versions 7.2 or later. Jira Data Center is supported too.

8.3.4 Installation and Upgrade

If you already have production data from a previous version of Structure.Gantt, please back up your database or Jira before upgrading.

Please review your Gantt configurations after upgrading to check that your settings are correct.

8.3.5 Known issues

Below are a few known issues and non-obvious cases.

- If a formula is selected as the source for resource assignment, any changes made to this formula after the resource list has been built will be ignored. For example, if your formula had a variable assigned to one field and you reassign that variable to another field after the resource list has already been built, the resource list will not be updated to reflect this change.
- The visibility of timeline bars depends on the permission settings of the structure owner (not just the current user). If a structure owner does not have permission to see an issue, they will not be able to see them on the Gantt chart.
- User icons from external sites (like Gravatar) will be replaced with uniform user icons during PDF/SVG export.
- Due to Adobe PDF limitations, maximum size of extracted Gantt chart can't exceed 200 inches (508 cm) by any side, and although most web browsers will open such PDFs without problem, Adobe Acrobat Reader will report an issue and crop the exported chart. We recommend using SVG export for huge charts instead.
- Quick filter functionality isn't working properly with the Filter by Resource action, so it is recommended that users avoid saving filters produced by this action.

8.3.6 Enterprise Deployment Notes

Structure.Gantt 1.3 introduces Slice-based Configurations, which allow users to divide their chart into groups of items (slices) and adjust configurations for those slices separately. Separating items into slices as well as performing separate data access for items of different slices may affect system performance. It is recommended to test slice-based configurations on staging servers before using them in production.

ⓘ Should you have any questions on Enterprise Deployment, let us know at support@almworks.com[44].

8.3.7 Structure.Gantt 1.3.1 Release Notes

ⓘ **11th of December, 2018**
Structure.Gantt 1.3.1 is a patch release based on Structure.Gantt 1.3.0

Download App[45]
Structure.Gantt on Atlassian Marketplace[46]

⚠ Structure.Gantt will become a paid app beginning with release 2.0. However, we are offering 1.x users the opportunity to extend their free software license for 2 years, including free maintenance. To learn more about this offer and sign up for your free license, visit our Free License Request Page[47].

8.3.7.1 Patch release

This is a patch release based on version 1.3.0. We have addressed the following issues:

- Fixed: when grouping transformations were applied to the structure, adjusting tasks or creating dependencies did not work as expected
- Fixed: milestones weren't filtered out by the Resource filter action
- Fixed:when the "Prefer Story Points over Time Tracking" option was selected, task progress was calculated using time spent, rather than status
- Fixed: it was impossible to alter a gadget's configuration after its creation
- Fixed: when a gadget's "Visible rows" setting was left empty, the gadget failed to display all rows

8.3.7.2 Installation and Upgrade

Structure.Gantt 1.3.1 requires Structure 5.1 or above.

If you already have production data from a previous version of Structure.Gantt, please consider backing up your data before upgrading.

8.3.7.3 Enterprise deployment notes

Structure.Gantt 1.3.1 does not introduce changes that could affect performance. We advise you to perform the usual testing on a staging server.

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44 mailto:support@almworks.com
45 https://wiki.almworks.com/display/gantt/Download
46 https://marketplace.atlassian.com/plugins/com.almworks.structure.gantt/server/overview
47 https://alm.works/free-gantt

8.3.8   Structure.Gantt 1.3.2 Release Notes

> ⓘ **29th of December, 2018**
> Structure.Gantt 1.3.2 adds compatibility with Atlassian Jira 8.0

Download App[48]
Structure.Gantt on Atlassian Marketplace[49]

> ⚠ Structure.Gantt will become a paid app beginning with release 2.0. However, we are offering 1.x users the opportunity to extend their free software license for 2 years, including free maintenance. To learn more about this offer and sign up for your free license, visit our Free License Request Page[50].

8.3.8.1   Patch Release

Starting from this version Structure.Gantt is compatible with Atlassian Jira 8.0.

8.3.8.2   Installation and Upgrade

Structure.Gantt 1.3.2 requires Structure 5.1 or above. Please, note that Structure 5.2 is required to run Structure.Gantt 1.3.2 on Jira 8.0.

If you already have production data from a previous version of Structure.Gantt, please consider backing up your data before upgrading.

8.3.8.3   Enterprise Deployment Notes

Structure.Gantt 1.3.2 does not introduce changes that could affect performance. We advise you to perform the usual testing on a staging server.

8.4   Structure Gantt 1.2 Release Notes

> ⓘ **18th of July, 2018**
> Structure.Gantt 1.2 introduces chart export into PDF/SVG and Jira and Confluence gadget.

Download App[51]
Structure.Gantt on Atlassian Marketplace[52]
Try Structure.Gantt at Our Demo Server - No Installation or Sign-up Required[53]

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48 https://wiki.almworks.com/display/gantt/Download
49 https://marketplace.atlassian.com/plugins/com.almworks.structure.gantt/server/overview
50 https://alm.works/free-gantt
51 https://wiki.almworks.com/display/gantt/Download
52 https://marketplace.atlassian.com/plugins/com.almworks.structure.gantt/server/overview
53 http://alm.works/gantt-demo

8.4.1 Version Highlights

- Export chart into a PDF or SVG file
- Ability to add Gantt chart to Jira Dashboard and Confluence pages

8.4.2 Changes in Detail

8.4.2.1 Export Gantt chart into a PDF or SVG file

It is now possible to export Gantt chart into a PDF or SVG file.
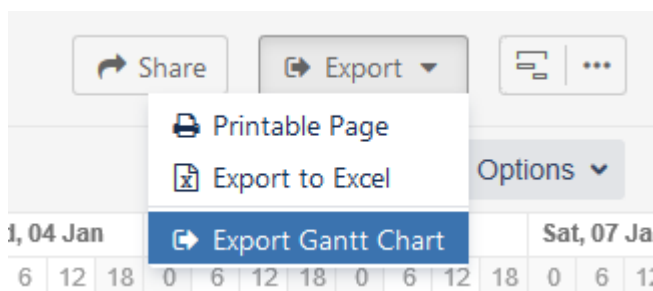
Documentation: Exporting to a Printable File

8.4.2.2 Ability to add Gantt chart to Jira Dashboard and Confluence pages

Structure.Gantt gadget can now be placed on Jira Dashboard or embedded into a Confluence page.

Documentation: Using Gadgets

8.4.3 Supported Versions

Structure.Gantt 1.2 requires Structure 4.6 or above.

We support all editions of Jira (Jira Core, Jira Software, Jira Service Desk) of versions 7.2 or later. Jira Data Center is supported too.

8.4.4 Installation and Upgrade

If you already have production data from a previous version of Structure.Gantt, please back up your database or Jira before upgrading.

Please review your Gantt configurations after upgrading to check that your settings are correct.

8.4.5 Known issues

Below are a few known issues and non-obvious cases.

- If a formula is selected as the source for resource assignment, any changes made to this formula after the resource list has been built will be ignored. For example, if your formula had a variable assigned to one field and you reassign that variable to another field after the resource list has already been built, the resource list will not be updated to reflect this change.
- The visibility of timeline bars depends on the permission settings of the structure owner (not just the current user). If a structure owner does not have permission to see an issue, they will not be able to see them on the Gantt chart.
- Maximum of 50 agile boards are available (in order of creation, oldest first) in the "Show Sprints from Board" dropdown menu under Fix Versions and Sprints Timeline Settings.
- User icons from external sites (like Gravatar) will be replaced with uniform user icons during PDF/SVG export.
- Due to Adobe PDF limitations, maximum size of extracted Gantt chart can't exceed 200 inches (508 cm) by any side, and although most web browsers will open such PDFs without problem, Adobe Acrobat Reader will report an issue and crop the exported chart. We recommend using SVG export for huge charts instead.

8.4.6 Enterprise Deployment Notes

Structure.Gantt 1.2 does not introduce changes that could affect performance. We advise you to perform the usual testing on a staging server.

> ⓘ Should you have any questions on Enterprise Deployment, let us know at support@almworks.com[54].

8.4.7 Structure.Gantt 1.2.1 Release Notes

> ⓘ **21th of August, 2018**
> Structure.Gantt 1.2.1 is a patch release based on Structure.Gantt 1.2.0

Download App[55]
Structure.Gantt on Atlassian Marketplace[56]

8.4.7.1 Patch release

This is a patch release based on version 1.2.0. We have addressed the following issues:

- Fixed: an issue with selecting Agile Board for Sprints visualization in a case where there are more than 50 boards configured
- Fixed: an issue when task duration and estimate may be calculated incorrectly if Manual Finish is defined and 24 hours calendar is used
- Fixed: broken icons when exporting into PDF with Firefox and IE 11 browser and using grouping
- Fixed: an input collapse while editing manual attribute specification (manual scheduling, progress or resource attribute editors)
- Fixed: for both start and finish manually scheduled tasks duration can't be less than default estimate

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54 mailto:support@almworks.com
55 https://wiki.almworks.com/display/gantt/Download
56 https://marketplace.atlassian.com/plugins/com.almworks.structure.gantt/server/overview

8.4.7.2 Installation and Upgrade

Structure.Gantt 1.2.1 requires Structure 4.6 or above.

If you already have production data from a previous version of Structure.Gantt, please consider backing up your data before upgrading.

8.4.7.3 Enterprise deployment notes

Structure.Gantt 1.2.1 does not introduce changes that could affect performance. We advise you to perform the usual testing on a staging server.

8.5 Structure.Gantt 1.1 Release Notes

> ⓘ **17th of May, 2018**
> Structure.Gantt 1.1 introduces Sprints and Fix Versions visualization at the timeline, redesigned Gantt configuration and ability to use Custom field or formula for progress calculation.

Download App[57]
Structure.Gantt on Atlassian Marketplace[58]
Try Structure.Gantt at Our Demo Server - No Installation or Sign-up Required[59]

8.5.1 Version Highlights

- Visualization of Sprints and Fix Versions on the timeline
- Redesigned Gantt Configuration dialog
- Ability to use Custom Fields or Formulas(see page 147) as a source for Task Progress
- Greatly improved performance

8.5.2 Changes in Detail

8.5.2.1 Visualization of Sprints and Fix Versions

It is now possible to show Sprints and Fix Versions on the timeline. You can select which Boards and Projects should be used as the source.

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57 https://wiki.almworks.com/display/gantt/Download
58 https://marketplace.atlassian.com/plugins/com.almworks.structure.gantt/server/overview
59 http://alm.works/gantt-demo
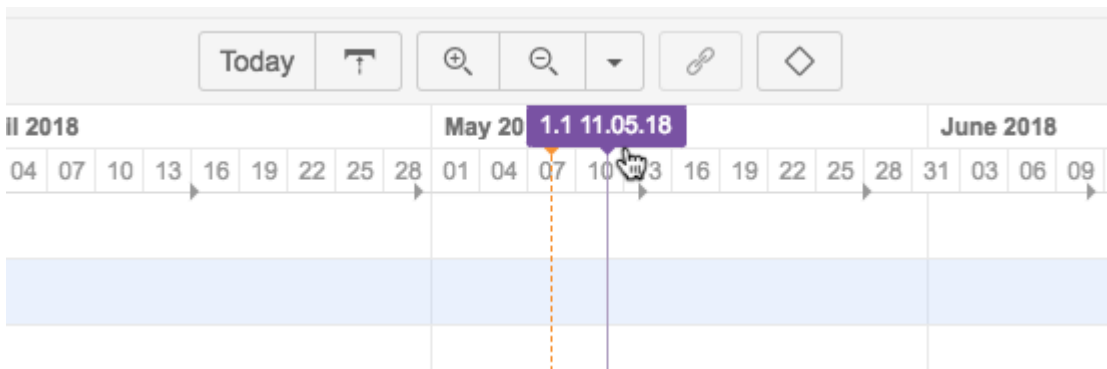
Documentation: Gantt configuration in Details[60].

8.5.2.2 Redesigned Gantt Configuration dialog

User interface for Gantt configuration was redesigned. Now it's much easier to switch between configurations, edit the current configuration, see if there are any errors in it and fix them.

Documentation: Gantt configuration in Details[61].

8.5.2.3 Ability to use numeric Custom Fields or Formulas for progress calculation

It is now also possible to use any numeric Custom Field or a Structure Formula(see page 147) for Progress.

Documentation: Progress configuration(see page 90)

8.5.2.4 Performance improvements

A major performance issue was fixed, so Gantt calculation now completes much faster.

8.5.3 Supported Versions

Structure.Gantt 1.1 requires Structure 4.6 or above.

We support all editions of Jira (Jira Core, Jira Software, Jira Service Desk) of versions 7.2 or later. Jira Data Center is supported too.

8.5.4 Installation and Upgrade

If you already have production data from a previous version of Structure.Gantt, please backup your database or Jira before upgrading.

Please review your Gantt configurations after upgrading to check that your settings are correct.

8.5.5 Known issues

Below are a few known issues and non-obvious cases.

- In some cases removed dependency will be removed from the Jira but may still be visualized on the chart, manual browser page refresh fixes the problem.
- If you are working with issues in multiple time zones, their alignment will be slightly off on the timeline. This may result in a small error in the calculation of the parent issue dates (if grouping is used) or may lead to an issue being excluded from the critical path, because this deviation adds a small gap between issues.
- If a formula is selected as the source for resource assignment, any changes made to this formula after the resource list has been built will be ignored. For example, if your formula had a variable assigned to one field and you reassign that variable to another field after the resource list has already been built, the resource list will not be updated to reflect this change.
- The visibility of timeline bars depends on the permission settings of the structure owner (not just the current user). If a structure owner does not have permission to see an issue they will not be able to see them on the Gantt chart.

8.5.6 Enterprise Deployment Notes

Structure.Gantt 1.1 introduces functionality for defining progress calculation based on custom fields or a Structure Formulas. Using such configurations may require more complex calculations and result in higher performance load. It is recommended to test Structure.Gantt 1.1 with different progress configurations at staging servers before using them in production.

The following configurations may require special attention:

- Progress based on complex Structure Formulas
- Progress based on scripted fields

> (i) Should you have any questions on Enterprise Deployment, let us know at support@almworks.com[62] .

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[62] mailto:support@almworks.com

8.5.7   Structure.Gantt 1.1.1 Release Notes

> ⓘ   **14ᵗʰ of June, 2018**
> Structure.Gantt 1.1.1 adds Jira 7.10 compatibility along with several bug fixes and improvements.

Download App[63]
Structure.Gantt on Atlassian Marketplace[64]

8.5.7.1   Patch release

This is a patch release based on version 1.1. This upgrade is recommended for all customers.

Starting from this version, Structure.Gantt is compatible with Jira 7.10. We are still working on making Structure.Gantt's user interface match the new look and feel of Jira 7.10. The app is perfectly usable, but you can still see some older-style controls and some differences with Structure's controls. We are planning to complete the redesign in the next feature version.

> ⚠   **Important:** Custom progress format, introduced in version 1.1, has changed in this patch. If you have Gantt charts where progress is calculated based on a formula or a special custom field, you need to review the configuration and make sure that the progress values range from 0.0 to 100.0 (not from 0.0 to 1.0).
> If you use a formula, just multiply it by 100.
> If you use a custom field with a progress value, you can either update all the values in that field or, if you'd like to continue to use values from 0.0 to 1.0 in the Jira field, use a formula for Gantt progress and multiply the custom field's value by 100.

We also addressed the following issues:

- Fixed: an error while saving Gantt Configuration on Jira Data Center
- Fixed: an error when removing Group transformations
- Fixed: undoing dependency creation removes the Jira link correctly, but does not remove the dependency on the Gantt chart
- Fixed: progress disappears when adding a Group transformation
- Fixed: progress disappears on all charts if a custom field used for progress in one of the configurations is removed from Jira

8.5.7.2   Installation and Upgrade

Structure.Gantt 1.1.1 requires Structure 4.6 or above.

If you already have production data from a previous version of Structure.Gantt, please back up your database or Jira before upgrading.

Please review your Gantt configurations after upgrading to check that your settings remain correct.

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63 https://wiki.almworks.com/display/gantt/Download
64 https://marketplace.atlassian.com/plugins/com.almworks.structure.gantt/server/overview

8.5.7.3 Enterprise deployment notes

Structure.Gantt 1.1.1 does not introduce changes that could affect performance. We advise you to perform the usual testing on a staging server.

8.6 Structure.Gantt 1.0 Release Notes

> ⓘ **29th of December, 2017**
> ALM Works is happy to release Structure.Gantt 1.0, our first General Availability release.

Download App[65]
Structure.Gantt on Atlassian Marketplace[66]
Try Structure.Gantt at Our Demo Server - No Installation or Sign-up Required[67]

Structure.Gantt is an extension to Structure, the Jira app used by more than 4,000 Atlassian customers worldwide to organize their issues in user-defined, multi-level hierarchies. Structure.Gantt enables you to display Jira project data in familiar Gantt charts so you can instantly visualize issue dependencies, timelines and understand resource allocation on a global scale. Designed to fit your current Jira configuration as is, Structure.Gantt is flexible, fast, and currently free for customers with a Structure license.

8.6.1 Version Highlights

- First ever Gantt Charts extension to Structure[68]!
- Easy creation of new structures with Gantt chart with Gantt Chart wizard
- Timelines, dependencies, resource allocation and more
- Good performance on structures of up to 10,000 issues

8.6.2 Getting Started

To start using Structure.Gantt on your Jira, follow a 5-minute installation and setup instructions in Quick Start Guide.

8.6.3 Supported Versions

Structure.Gantt 1.0 requires Structure 4.5 or above.

Jira versions 7.2 or later supported. All editions of Jira (Jira Core, Jira Software, Jira Service Desk) are supported. Jira Data Center is supported.

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65 https://wiki.almworks.com/display/gantt/Download
66 https://marketplace.atlassian.com/plugins/com.almworks.structure.gantt/server/overview
67 http://alm.works/gantt-demo
68 https://marketplace.atlassian.com/plugins/com.almworks.jira.structure/server/overview

8.6.4 Installation and Upgrade

If you already have production data from a previous version of Structure.Gantt, please backup your database or Jira before upgrading.

Please review your Gantt configuration after upgrading to check that your settings are correct. Also, be aware, there is the new Resolution Date scheduling option which is enabled by default.

8.6.5 Known issues

Below are a few known issues and non-obvious cases.

- If you are working with issues in multiple time zones, their alignment will be slightly off on the timeline. This may result in a small error in the calculation of the parent issue dates (if grouping is used) or may lead to an issue being excluded from the critical path, because this deviation adds a small gap between issues.
- If a formula is selected as the source for resource assignment, any changes made to this formula after the resource list has been built will be ignored. For example, if your formula had a variable assigned to one field and you reassign that variable to another field after the resource list has already been built, the resource list will not be updated to reflect this change.
- The visibility of timeline bars depends on the permission settings of the structure owner (not just the current user). If a structure owner does not have permission to see an issue they will not be able to see them on the Gantt chart.
- If you are migrating from the Structure.Gantt Beta release the tasks that are assigned to a resource with the capacity higher than 1 will now take longer. That's because we have introduced the Maximum Units parameter, which sets the maximum number of resource units that can be used for the task. This parameter is set to 1 by default.
- Default task duration default for newly created Gantt configurations is now 1 day (previously it was 1 hour).

8.6.6 Enterprise Deployment Notes

See Enterprise Deployment notes in the product documentation.

8.6.7 Structure.Gantt 1.0.1 Release Notes

> ⓘ **5th of February, 2018**
> Structure.Gantt 1.0.1 adds several improvements and performance optimizations to version 1.0.

Download App[69]
Structure.Gantt on Atlassian Marketplace[70]
Try Structure.Gantt at Our Demo Server - No Installation or Sign-up Required[71]

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[69] https://wiki.almworks.com/display/gantt/Download
[70] https://marketplace.atlassian.com/plugins/com.almworks.structure.gantt/server/overview
[71] http://alm.works/gantt-demo

8.6.7.1 Patch Release

This is a patch release based on Structure.Gantt 1.0. Upgrade is recommended to all customers using version 1.0 or pre-GA versions.

The patch includes:

- Navigation to an assigned resource from the Task Info pop-up
- Improved deleting Gantt configurations
- Performance improvements

8.6.7.2 Supported Versions

Structure.Gantt 1.0.1 requires Structure 4.5 or above. Jira versions from 7.2 or later are supported. All editions of Jira (Jira Core, Jira Software, Jira Service Desk) are supported. Jira Data Center is supported.

8.6.7.3 Installation and Upgrade

If you already have production data from a previous version of Structure.Gantt, please backup your database or Jira before upgrading.

Please review your Gantt configuration after upgrading to check that your settings are correct.

9 Structure.Gantt Roadmap

Updated On	October 2019
Next Update	November 2019

In this roadmap, we'd like to share some features the Structure.Gantt team is going to work on in the near to mid term. The scope of this roadmap is 6 months to 1 year.

A few notes and disclaimers about the roadmap:

- We only list **new, important functionality**– we are also going to work on other stuff, such as improving existing features, improving quality, improving user interface and adding minor features.
- This document lists only upcoming features in Structure.Gantt. We're also working on Structure for Jira and other Structure extensions, which have their own roadmaps.
- The roadmap is subject to change. We will update it periodically so it reflects our current vision.
- We only describe features briefly. If you are interested in the details of some specific feature or can provide feedback and ideas, please let us know at gantt@almworks.com[72]

> ⚠ It is our general approach at ALM Works to focus on the quality of the product. Sometimes this means delivering a product later or changing plans and priorities, as unexpected dependencies and challenges appear. Therefore, while we try to adhere to the announced roadmap, by no means should it be considered an obligation from ALM Works, and it should not be relied upon when making purchasing decisions.
> If you have any questions about our roadmap policy, please write to info@almworks.com[73].

9.1 Versions and Dates

We generally aim to release a minor version of Structure.Gantt every 1-2 months and a major version every year. The following is an approximate release schedule for the scope of this roadmap.

Target Month	Nov '19	Jan'20	Mar'20	May'20	Jul'20	Sep.20
Version	2.1	2.2	2.3	2.4	3.0	3.1

9.2 Roadmap

Here's the list of major features that we're planning to work on in Structure.Gatt 2.x series up until Structure.Gantt 3.0

- **Baselines** – ability to save a baseline and later compare against it (
  ✅
  Structure.Gantt 2.0)
- **Resource Constrained Scheduling** – aka Resource Leveling, automatic scheduling that avoids resource overallocation (

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[72] mailto:info@almworks.com.
[73] mailto:info@almworks.com

✅
 Structure.Gantt 2.0)

- **Auto scheduled fixed-duration tasks** – ability to specify duration for auto scheduled or tasks with either manual start or finish set
- **Change Dependency Type** – an ability to quickly change dependency type
- **Dependency lag/lead time** – ability to specify lag and lead time between dependent tasks
- **More Gantt Data as Structure attributes** – export other Gantt data and allow to use it in Structure columns
- **Backlog** – an ability to position not yet scheduled tasks at today or after scheduled tasks
- **Sandbox Mode** – ability to play with "what-if" scenarios, without affecting the data seen by other users

Planned for later:

- **Syncing to Jira Custom Fields** – writing the calculated values (such as Start Date and Finish Date) into Jira custom fields
- **Multiple Resources** – ability to specify several resources along with their usage
- **Resource Management** – more flexible way to manage resources and share them between several charts
- **Actual Start and Actual Finish Dates**
- **Editable Work Calendars** – a UI for managing calendars
- **Deeper Integration with Structure Attributes** – lets Estimate, Manual Start Date be extracted from an arbitrary attribute (including calculated attributes)
- **Milestone-Driven and Non-Binary Critical Path** – a way to calculate critical paths for a specific milestone and calculate a relative risk for a task to become critical
- **MS Project Integration** – wizard for importing data from MS Project
- **Split Tasks** – supporting a way to break down a task into pieces when dependencies change and the task already has non-zero progress
- **Calendars Integration** – integration with major providers of work calendars, such as Tempo, Portfolio
- **Structure of Structures, Gantt of Gantts** – support configurations where a structure contains other structures and its Gantt imports the pre-calculated Gantt charts from those structures

10 Structure.Gantt Upcoming Pricing Changes

We've invested a lot of effort in Structure.Gantt, and the product is getting more mature. To further support the active development, we've decided to make it a paid app starting with version 2.0. This version supports Agile planning, resource constrained scheduling, baselines and a number of other features.

To help our existing customers with this transition, we were offering them a free license for Structure.Gantt with 2 years of maintenance/subscription. This program is officially closed, but if you do have an active Structure license, which was purchased before the release of Structure.Gantt 2.0 and you wish to obtain this free license, please submit a request on our customer portal[74] and we'll consider it.

10.1 FAQ

Questions	Answers
When will Structure.Gantt pricing take effect?	The new pricing takes effect with the release of Structure.Gantt 2.0.
Can I continue to use Structure.Gantt for free?	You may continue to use Structure.Gantt 1.x for free for as long as you wish, but you will not be entitled to new releases, including version 2.0, or customer support, unless you obtain a paid license.

10.2 Structure.Gantt Pricing

With the release of version 2.0 we are making Structure.Gantt a paid app. You can find the new pricing in the tables below:

10.2.1 Server

User Tier	Price
25 users	$300
50 users	$550
100 users	$1,000
250 users	$1,800
500 users	$2,700

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[74] https://support.almworks.com/servicedesk/customer/portal/8/create/74

User Tier	Price
2,000 users	$3,600
10,000 users	$4,800
10,000+ users	$6,000

10.2.2 Data Center

Jira DC License	Price	Jira DC License	Price
50 users	$550	100 users	$1,000
250 users	$1,800	500 users	$2,700
750 users	$3,000	1,000 users	$3,300
2,000 users	$3,600	3,000 users	$3,900
4,000 users	$4,200	5,000 users	$4,500
6,000 users	$4,800	7,000 users	$5,100
8,000 users	$5,400	9,000 users	$5,700
10,000 users	$6,000	11,000 users	$6,300
12,000 users	$6,600	13,000 users	$6,900
14,000 users	$7,200	15,000 users	$7,500
20,000 users	$8,300	25,000 users	$9,100
30,000 users	$9,900	35,000 users	$10,700
40,000 users	$11,500	45,000 users	$12,300
50,000 users	$13,100	Unlimited	$14,000

11 Features and Limitations

Structure.Gantt is a relatively new product at the beginning of its journey. On this page, we list the features that are currently available *and* the features that will be coming later. Our goal is to continuously improve the power of Structure.Gantt and the benefits it provides, with each new release.

11.1 Features

The following features are available in Structure.Gantt.

- Responsive, configurable, visual **Timeline**, showing tasks, dependencies and more
- Structure-generated work breakdown structures with folders and unlimited hierarchy
- Finish-to-Start, Finish-to-Finish, Start-to-Start and Start-to-Finish dependencies
- **Critical Path** highlighting
- Milestones
- **Automatic Scheduling** driven by dependencies (as-soon-as-possible mode)
- **Resource Leveling** to automatically solve overallocations
- **Sprint-based Scheduling**
- **Manual Scheduling** based on custom fields
- **Baselines** to track changes over time
- Effort estimation ("Work" value) based on **Time Tracking**, **Story Points**, a mix of both, or any other attribute or formula
- Flexible **Resource Allocation** charts based on the Assignee field, custom fields, or a Structure formula
- Per-resource time zone support and configurable calendars
- Flexible capacity management for resources via a **Units** value (number of people on a team), an **Availability** schedule (vacation, illness, etc.), and **Max. Units** that can be applied to tasks
- Progress based on Time Tracking, Story Points, or any other attribute or formula
- **Slices** to create different configurations for different issue types
- Gantt chart sharing based on Structure permissions settings
- Printing and Exporting
- Gadgets for Jira Dashboard and Confluence

11.2 Current Limitations / Roadmap

The following capabilities are **not** available, yet. We plan to introduce them in later versions. Keep an eye out for new releases!

- Roadmapping: Version planning
- What-if Exploration *(what happens if I change these values)*
- Import from Microsoft Project (or other tools)
- Calendar Importing from other Jira apps
- As-late-as-possible scheduling
- Resource mapping
- Split tasks and rescheduling of the remaining time
- Actual Start and Finish dates
- Copying a Gantt chart

See Structure.Gantt Roadmap for additional information.

12 Open Source Licenses

Structure.Gantt is made possible by open source software.

The following is a list of open source libraries used in the product and links to their respective license agreements.

Component / Library	License
Annotations (JetBrains)[75]	Apache 2.0[76]
Apache Commons[77]	Apache 2.0[78]
Apache Derby[79]	Apache 2.0[80]
blob-stream[81]	MIT license[82]
Canvas2SVG[83]	MIT license[84]
CharFunk[85]	MIT license[86]
ES6-Promise[87]	MIT license[88]
Font Awesome[89]	SIL OFL 1.1, MIT license[90]
Jackson[91]	Apache 2.0[92]
jQuery[93]	MIT license[94]
Kotlin[95]	Apache 2.0[96]

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[75] https://github.com/JetBrains/java-annotations
[76] https://www.apache.org/licenses/LICENSE-2.0
[77] https://commons.apache.org/
[78] https://www.apache.org/licenses/LICENSE-2.0
[79] https://db.apache.org/derby/
[80] https://www.apache.org/licenses/LICENSE-2.0
[81] https://github.com/devongovett/blob-stream
[82] https://github.com/devongovett/blob-stream/blob/master/LICENSE
[83] https://gliffy.github.io/canvas2svg/
[84] https://github.com/gliffy/canvas2svg/blob/master/LICENSE
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[87] https://github.com/stefanpenner/es6-promise
[88] https://github.com/stefanpenner/es6-promise/blob/master/LICENSE
[89] https://fontawesome.com/
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[91] https://github.com/FasterXML/jackson
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[93] https://jquery.com/
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[95] https://kotlinlang.org/
[96] https://github.com/JetBrains/kotlin/blob/master/license/LICENSE.txt

Component / Library	License
moment-jdateformatparser[97]	MIT license[98]
Moment.js[99]	MIT license[100]
PDFKit[101]	MIT license[102]
tslib[103]	Apache 2.0[104]

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97 https://github.com/MadMG/moment-jdateformatparser
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