

# Progress Based on Time Tracking

The progress is calculated based on the issue's Resolution field, time tracking data and the progress of sub-issues. Best estimate of the issue's completion is given, with extrapolation of the sub-issue estimates if needed.

## Calculating Progress for Issue Without Sub-Issues

If the issue does not have sub-issues:

- If the issue's Resolution field is not empty, and **Apply Resolution** is turned on, the progress is 100%.
- Otherwise, if the issue has time tracking information, the progress is calculated proportionally to this issue completion%:  $(\text{Time Spent}) / (\text{Time Spent} + \text{Remaining Estimate})$
- Otherwise, the progress is 0%.

## Calculating Progress for Issue with Sub-Issues

If the issue does have sub-issues:

- If the issue's Resolution field is not empty, and **Apply Resolution** is turned on, the progress is 100% - regardless of the sub-issues progress.
- If the issue and its sub-issues do not have estimates or work logged (or if time tracking is turned off), the progress is calculated as the average from the sub-issues progresses.
- If time tracking is used and all issues have an estimate (either original estimate or remaining estimate) - the estimates and total work logged are summed up and the progress is calculated as the total completion%:  $(\text{Total Time Spent}) / (\text{Total Time Spent} + \text{Total Remaining Estimate})$ 
  - If a sub-issue does not have time tracking information, it is counted in as an average sub-issue, based on the mean total time (time spent + remaining estimate)



If the issue has both its own time tracking information and sub-issues with progress, and if **Ignore Parent Issue Progress** is turned off, issue's own progress value is counted as if it was the progress of one another sub-issue.

## Examples

### 1. Example without time estimates

Summary	Progress
▼ Top issue	<div style="width: 25%;"></div>
Sub-issue 1	<div style="width: 0%;"></div>
▼ Sub-issue 2	<div style="width: 50%;"></div>
✓ Sub-sub-issue 2.1	<div style="width: 100%;"></div>
Sub-sub-issue 2.2	<div style="width: 0%;"></div>

Issue	Explanation	Progress
Sub-sub-issue 2.1	This issue is resolved (indicated by the green mark) - so it is complete	100%
Sub-issue 2	It has two sub-issues with 100% and 0% progress, the total progress is average value	50%
Top issue	It has two sub-issues: sub-issue 1 is 0% done and sub-issue 2 is 50% done, the mean value is 25%.	25%

### 2. Example with time tracking information

Summary	Progress	Time Spent	Remaining
▼ Top issue	<div style="width: 25%;"></div>		
Sub-issue 1	<div style="width: 75%;"></div>	3 days	1 day
Sub-issue 2	<div style="width: 0%;"></div>		1 day

Issue	Explanation	Progress
Sub-issue 1	It has 3 days of work logged with 1 day remaining, so its progress is $\text{time spent} / \text{total time} = 3 / (3 + 1)$	75%
Sub-issue 2	This issue does not have any work logged, is not resolved and does not have sub-issues	0%
Top issue	The top issue has total time spent of 3 days (work logged on sub-issue 1) and 2 total days remaining (estimates on sub-issue 1 and sub-issue 2), so its progress $3 / (3 + 2)$ .	60%

### 3. More complex example

Summary	Progress	Time Spent	Remaining
▼ Top issue			
Sub-issue 1		3 days	1 day
▼ Sub-issue 2			1 day
Sub-sub-issue 2.1		2 days	1 day
Sub-sub-issue 2.2		1 day	0 minutes
Sub-issue 3			

Issue	Explanation	Progress
Sub-sub-issue 2.1	It has 2 days of work logged and 1 day remaining, the progress is $2 / (2 + 1)$	66%
Sub-sub-issue 2.2	This issue has 1 day of work logged and no work remaining - so even though it is not resolved, it's considered completed	100%
Sub-issue 2	It has total time spent of 3 days, and total remaining estimate of 2 days (the remaining time from sub-sub-issue 2.1 and its own 1 day, which is considered additional work, besides sub-issues). The progress is $3 / (3 + 2)$ .	60%
Sub-issue 1	This one has 3 days of work logged and 1 day remaining - the progress is $3 / (3 + 1)$	75%
Top issue	The progress of the <i>top issue</i> is calculated as follows. The obvious total time spent is 6 days, total remaining estimate is 3 days (count in all sub-issues on all levels). But there's also <i>sub-issue 3</i> , which does not have estimates or work logged, so it's estimated based on the average among the Top Issue's children issues - <i>sub-issue 1</i> and <i>sub-issue 2</i> : the average between total time of <i>sub-issue 1</i> ( $3 + 1 = 4$ days) and total time of <i>sub-issue 2</i> ( $3 + 2 = 5$ days) is 4.5 days. So <i>sub-issue 3</i> is treated as if it has total time 4.5 days (and given its 0% progress that's 0 days spent and 4.5 days remaining). That yields for the <i>top issue</i> : total time spent is 6 days, total remaining time is 7.5 days, and the progress is $6 / (6 + 7.5)$ , which gives 44% value.	44%