

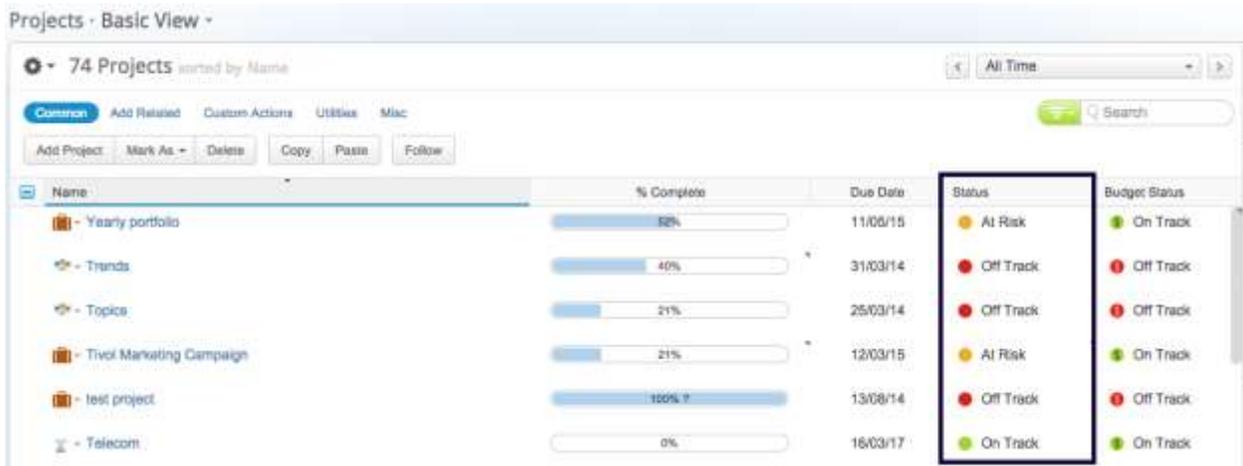
## Expected Progress and Schedule Status

For many users, scheduling work is one of Clarizen's most basic uses with scheduling capabilities being vital to their structuring and distributing of work properly.

One of Clarizen work items' most visual key performance indicators is the Status RAG indicator (Red-Amber-Green icon). You will see it by default in thumbnail view of projects like this:



And all default module views (lists) of work items: Projects, Milestones and Tasks



And if you're using email notifications to drive progress updates via "Time to Update Your Progress" emails, recipients will see the Expected Progress % by default, although this can be turned off by an Admin in System Settings.

☉ If there are problems with how this message is displayed, click here to view it in a web browser.

From: <system@clarizen.com>  
 To: Training  
 Cc:  
 Subject: Time to Update Your Progress

Sent: Thu 06/03/2014 2:30 AM

**clarizen**  
 the way to work

Dear Clanzen,

Please update progress for tasks in your 'Clarizen Int.' account by selecting one of the following action(s):

- [Quick Update](#) - I want to quickly update my progress for each task without logging into Clarizen. You can also subscribe to your tasks' calendar from within your quick update page!
- [My Progress is According to Plan](#) - Update all my tasks' progress based on the expected progress listed below.
- [Log into Clarizen](#)

**Active Tasks**

Project: [Education](#) (P-13142)

Importance	Task ID	Task Name	Due Date	Reported			Expected		
				% Completed	Actual Effort	Remaining Effort	% Completed	Actual Effort	Remaining Effort
	T-71999	<a href="#">Book 1 / Chapter 2</a>	13-May-13	80	6.4 h	1.6 h	100	8 h	0 h
	T-72000	<a href="#">Book 1 / Chapter 3</a>	23-May-13	60	4.8 h	3.2 h	100	8 h	0 h
	T-72001	<a href="#">Book 1 / Chapter 4</a>	02-Jun-13	20	1.6 h	6.4 h	100	8 h	0 h
	T-72002	<a href="#">Book 2 / chapter 5</a>	12-Jul-13	10	0.8 h	7.2 h	50	4 h	4 h
	T-72003	<a href="#">Book 2 / Chapter 6</a>	21-Aug-13	5	0.4 h	7.6 h	0	0 h	8 h
	T-72004	<a href="#">Book 2 / Chapter 7</a>	30-Sep-13	0	0 h	8 h	0	0 h	8 h

This article explains how Clarizen's Expected Progress is calculated, how combined with %complete it drives the Schedule Status indicator, and which other capabilities use the schedule calculations.

## Schedule Status Calculation

Before we get into how the status is calculated, it's essential you are familiar with some basic principles on how work is measured and organized in Clarizen.

Firstly, Work has a weight. As in "how much work is that?" There are several techniques to calculate work, Clarizen uses "Planned Effort in Person/Hours". Planned Effort field is labelled simply as "Work" in Clarizen. In order to measure the progress of the work, we use the ratio of how much is actually done vs how much is remaining, or:

$$\text{Work} = \text{Actual Effort} + \text{Remaining Effort}.$$

Before a task has any work performed on it, its work is the same as its remaining effort, or  $\text{Work} = \text{Remaining Effort}$ . That is, if you didn't make any progress with the work, then what's remaining is all the work that was initially planned. Simple.

Once progress is reported on the task, the Actual Effort will be logged and the Remaining Effort will be reduced by the corresponding amount.

#### Note about Timesheets

You can drive the Actual Effort by Timesheet entries and each work item has a flag “Actual Effort updated from Timesheets” which it takes the default of the parent - so if you set a project as having its Actual Effort updated from Timesheets, you should expect to see all the tasks within the project have that setting turned on, but can turn it off for certain tasks if you need. This is important because timesheets will not update the actual efforts until they are approved, so you may have progress reported that is not yet reflected in the Actual Effort. The “Pending Time” field shows you how much time you have in the timesheet pipeline.

By now you should have understood that Tasks in Clarizen have a certain “weight” that is measured in Work. As you do the work, you report Actual Effort and so what is left is the Remaining Effort. Converting it all into %complete allows us to get an overall understanding of progress, no matter how large or small a particular task is.

$$\%Complete = Actual\ Effort / Work$$

Clarizen Tasks have a planned Start Date and Due Date. You can change the dates by rescheduling, you may deliver late, you may deliver with more effort than initially planned, but at least you have a plan that you typically share with Project stakeholders. Clarizen will project (“expect”) the work to be done at a uniform rate over the duration of the task.

The schedule Status, is calculated by comparing the Actual Percent Completed with the Expected Percent Completed. In both cases, Clarizen calculates the Percent Completed as:

$$Actual\ \% \ Completed = Actual\ Effort\ (hours) / Work\ (hours)$$

Expected Percent Completed is the linear projection of a task’s work distributed over that task’s duration as defined in the Work Plan. This value does *not* change in accordance with a task’s actual or remaining effort, however, as it’s calculated by spreading the work over the duration of the task it can change if you update the Work or the Duration fields.

In addition, when you assign a task to a resource, the work spread over the duration of the task, is assigned to that resource’s work load according to that person’s availability (working hours and time off). This is the task’s Resource Load – you can view it from the task, or from the resource.

### Note about Resourcing

Clarizen will give you a visual notification when assigning someone to a task who already is fully utilized over the duration of the task, but will not block you from overloading a resource, nor reschedule other work for you. So the expected progress calculation for the individual task does not take that user's other assigned work into consideration, but only possible working hours according to the resource's calendar and the % availability for new project work. To see the full picture of a user's workload, you use the Resource Load screen. In addition, for a fuller understanding of the method used to calculate the resource allocation and a tasks' work load (or "weight"), make sure to read the article on Work Policy.

An Expected Progress example:

Project 1 has 2 tasks:

- Task A is an 8 hour task. And has one resource (let's call him "Bob"). Bob has an 8 hour work day and full availability to take on new project work, so we expect Bob to complete the task in one day.
- Task B is a 3 day task. It has a dependency on task A, so that it is scheduled to start only after A is complete. Again it has only one person, Bob, assigned to do the work. As Clarizen only takes into account working hours, the 3 day task with a single resource is the equivalent of 24 person/hours of work (that is:  $8h * 3 = 24h$ ).

Let's consider that the task is scheduled to start on Monday Jan 1<sup>st</sup>. According to the plan, Clarizen expects the task to complete as follows with each work day representing 25% of the project's work weight.

**Project 1 – a project with 2 simple tasks, in sequence**

	Mon. Jan 1 <sup>st</sup>	Tue. Jan 2 <sup>nd</sup>	Wed. Jan 3 <sup>rd</sup>	Thur. Jan 4 <sup>th</sup>
<b>Expected Project Progress</b>	25%	25%	25%	25%
<b>Task A (8h)</b>	8h (100%)	Task complete	Task complete	Task complete
<b>Task B (24h)</b>	No progress, due to the dependency	8h (33.3%)	8h (33.3%)	8h (33.3%)

The 2 most common ways to visualize linear projection of expected work completion are:

- Resource Load screen – a calendar grid view displaying the distribution of expected task completion in hours or as % of user working capacity.
- Burndown Chart – a linear chart which shows the planned (expected) completion of the project work over time overlaid with the project's Remaining Effort. This is a common tool in Agile/ Scrum projects

Now that we have understood Work, Actual Effort and Duration we can look at how the Scheduling Status KPI is calculated.

The Scheduling Status RAG indicator gives you a single and updated KPI of how work is progressing with any work item. It is calculated whenever a change is made to the

- Duration
- Start Date
- End Date
- Work
- Actual effort
- Remaining effort

- % complete

In addition a daily calculation is run at 00:00 GMT for all active projects, regardless of whether updates were made during the previous day.

### Leaf Tasks

The scheduling status of leaf tasks (tasks that have no sub tasks) is as follows:

#### On Track (Green)

If the Actual Percent Completed is under 10% less than the Expected Percent Completed or Actual Percent Completed is greater than the Expected Percent Completed

#### At Risk (Orange)

If the Actual Percent Completed is 10% or more below the Expected Percent Completed

#### Off Track (Red)

The due date of the task has passed and the Actual Percent Completed is less than 100%

### Hammock Work Items

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Hammock work items (work items that have sub-items) follow the same calculation as specified above, however, if a sub work item of the hammock is on the project's critical path, and has a scheduling status different than the calculated, the hammock will inherit the scheduling status of that sub work item.

As Milestones do NOT have their own work, their expected completion is calculated from their sub-tasks.

#### Note about %Complete

If you break your Work Item (Project, Milestone, or Task) into sub items, you will no longer be able to manually update the Work, Actual Effort and Remaining Effort on that work item (it's known as a hammock or parent item), instead, those fields on the parent will be calculated by rolling up the values in the child items. However %Complete can always be manually set to override Clarizen's calculation. When it is manually set, you will see a small blue triangle in the upper right corner of the cell.

In this example we can see that the parent “Sprint 3” is set to 26% Complete vs the Expectation of 25% and despite the sub tasks (sub 1 and sub 2) being slightly off schedule with an orange indicator, manually setting the value has caused an override. This gives the Project Manager the flexibility to keep the actuals updated even if the team performing the work might be behind with reporting their progress.

Name	% Complete	Expected Progress	Start Date	Due Date
(S-20151901) [Clarizen] - ...	26	81.34	11-Sep-13	17-Apr-15
Sprint 3	26	25	27-Mar-15	17-Apr-15
sub 1		25	07-Apr-15	10-Apr-15
sub 2		25	07-Apr-15	10-Apr-15

### Progress Update Email Settings

Let’s say you have a long running task whose duration lasts 4 weeks and you have email update requests going out to users every day. In many cases, you won’t expect the resources to make daily progress, so you won’t need them to update every day but you do need to make sure you are capturing when meaningful amounts of progress are made.

To address this scenario, Clarizen has a system-level setting which allows you to set how large those chunks are (in % of work). So if a task is 20 h of work, spread over 4 weeks, resources will be asked to provide an update when the expected progress of the task hits 25%, 50%, 75% and 100%.