

Tracking Light

Tracking project progress: the basics

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Why do we plan?

Almost every time I ask this question to students I get half of the answer.

First half of the answer

We set up a plan, a schedule, in order to coordinate the project task in an orderly manner. Yes, indeed, but if this was the only reason, then we could simplify the setup of a schedule tremendously, save time and money, and all by all coordinate the tasks in a more improvised, nevertheless sufficient way.

There is more to it.

Second half of the answer

Because we want to track the project, compare it's actual progress (what the metrics might be) with the scheduled progress, analyse and act when necessary.

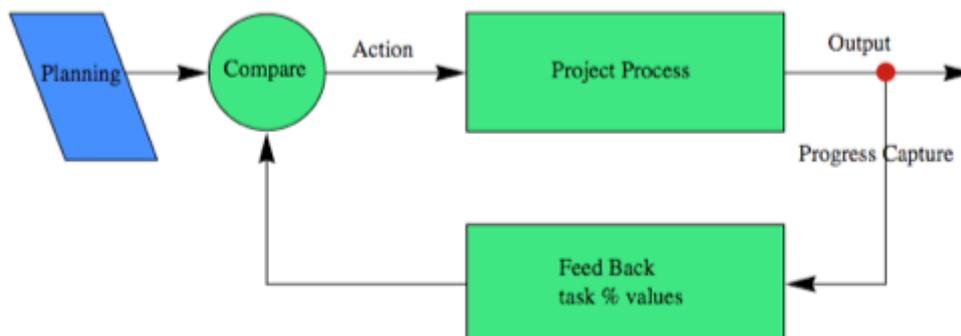
We want to drive the project.

We don't want to be driven by the project.

Feedback control

First and second half of the answer bring us to feedback control.

This is a simplified feedback control diagram:



We now take the [process control](#) approach.

We consider a project to be the [process](#). This process by the way is assembled from a set of subprocesses. (see article on the Tree structure [here](#). Consider every node of the tree to be a subprocess).

- The [planning](#) or schedule provides the “feed forward information” that is fed into the project.
- While the project evolves, we [capture progress](#) values on the tasks level at regular time intervals.
- These data are fed into a [feedback](#) system
- The feedback system delivers information that we can [compare](#) with originally scheduled values
- From here we can [analyse, conclude and decide](#) on acting upon the project process

This is the crux of project control: we want to plan-do-check-act.

We want to keep everything under control.

[We want to drive, not being driven.](#)

Side note

We now understand that we want to measure the progress on a task level.

We must now draw an important conclusion: the progress of all task must be [measurable](#).

In order words:

Rule :: when defining a task, check that its progress can be measured.

Please refer to [this article](#) about metrics

Workflow

This workflow would be repeated on regular intervals, eg once every two weeks.

Step 1

Capture the progress value on a task level.

We call this the % complete values.

By % complete we mean % of [physical progress](#) complete. There other systems, but we chose to focus on the physical progress.

Why we do so is explained in this [article](#).

The % complete values can be entered in the scheduler, or sometimes in an other interface specially designed for this purpose.

Step 2

Issuing a progress report.

This can be done in different ways:

- inside the scheduler if it provides such functionality
- by exporting data from the scheduler and importing these in a specific analytical tool

Step 3

Analyse the progress report and draw conclusions.

The type of reporting (see below) greatly defines the kind of analysis that can be performed on the progress reports.

In any case, this is a task for the planner and /or the pm.

Step 4

Act.

Now you know where the problems are, it is time for you to act.

Keep these guidelines in mind

- leave the problems-less things unchanged
- never change a winning team (or subteam)
- do not overreact
- do not rush on every little problems there is, differentiate between critical and not-critical

Sep 5

Contemplate.

Yes, take the time to contemplate the results of your actions.

Static versus dynamic reports

Static reports

These take the format of tables.

With more or less flags, traffic lights, arrows pointing up or down, and all that kind of decorations.

Whatever the amount of these decorations, such reports will not succeed in delivering more than a static view on the project status.

This can be sufficient, for these types of projects

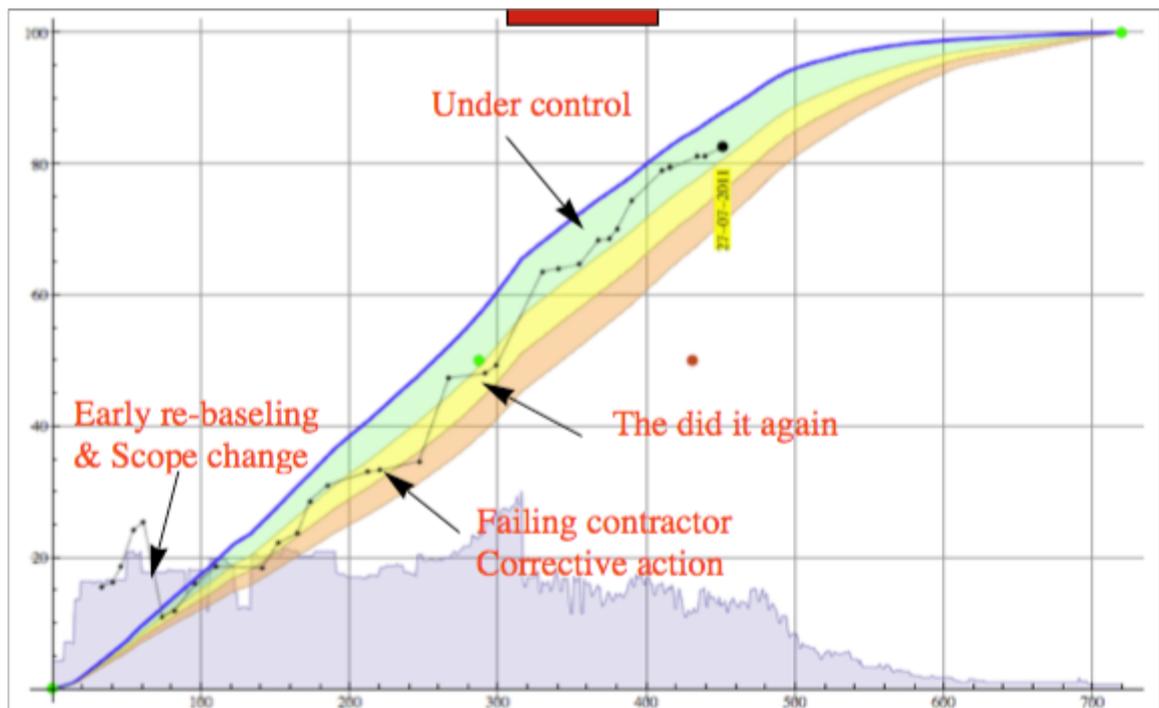
- very small projects
- slow projects
- linear projects (installing a pipeline f.i.)

But, when things become more complicated, we prefer dynamic reports

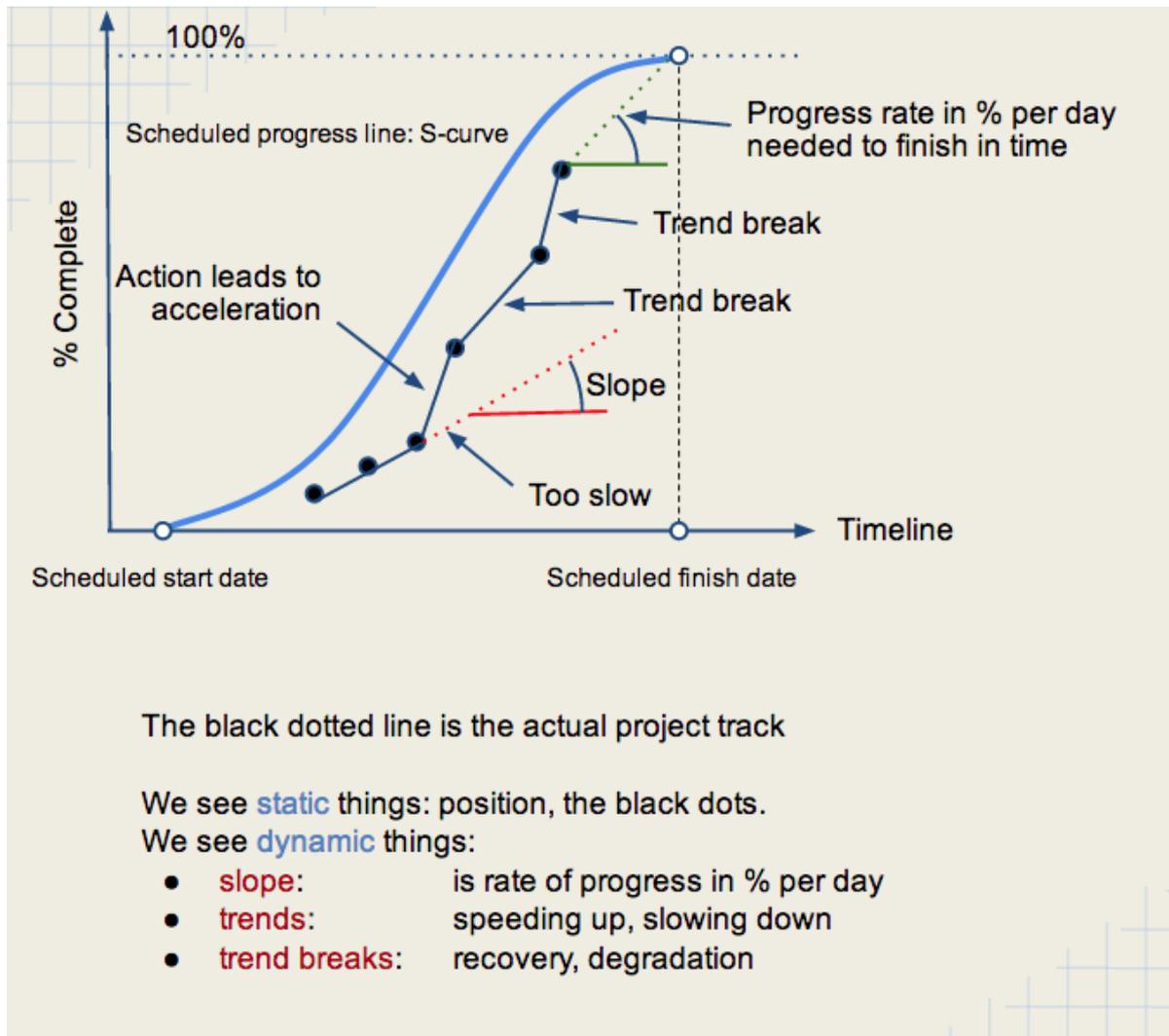
Dynamic reports

Dynamic reports come in the shape of S-curves.

This is an S-curve taken from an industrial project



This is a snapshot taken from a presentation that can also find [here](#).



Dynamic reports deliver a **much richer content** in the shape of **progress rates, trends, trend breaks** and deliver all the information needed to make realistic prognosis.

Dynamic reports really give you the pulse of the project and not only a momentary value of its blood pressure.

The Cost of Tracking

Yes, there is a cost to tracking a project !

Collecting % values, compiling the results, issuing the progress reports, analysing, reporting, takes manhours.

How much depends on what system one uses.

If everything is done “manually”, then indeed, tracking can become a substantial manhours consumer.

If some automated service is used, then cost ranging from \$ 75 to \$ 100 per year for tracking one project are feasible. This is small money compared to the average project budget.

Further reading

Article: [Tracking / Advanced](#)

The next links bring you to video's showing the workflow of a fairly advanced automated system for project tracking. It also shows how detailed analysis can be performed using the dynamic information.

MS project users: go [here](#)

Smartsheet users: go [here](#)

ProjectLibre users: go [here](#)

For further information you can contact me at jp@tollenboom.be and [@JPToll](#),

or simply post a comment on my blog www.jptollenboom.org