Estinator™
Basic

Estinator Basic
User Guide

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For details about Estinator™ see www.estinator.com

Version 0.2
This edition is applicable for version 1.41 and later of Estinator Basic. Screenshots are not necessarily from the latest version, and certain details might vary.

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Table of contents

Introduction to Estinator Basic 4

Features 4

Start up of application 5

Simulating 6

Examples 7

MVP solution 13

Introduction to Estinator Basic

Features

Estinator Basic is a simple application that can help make decisions in a project by making simulations based on the project triangle.

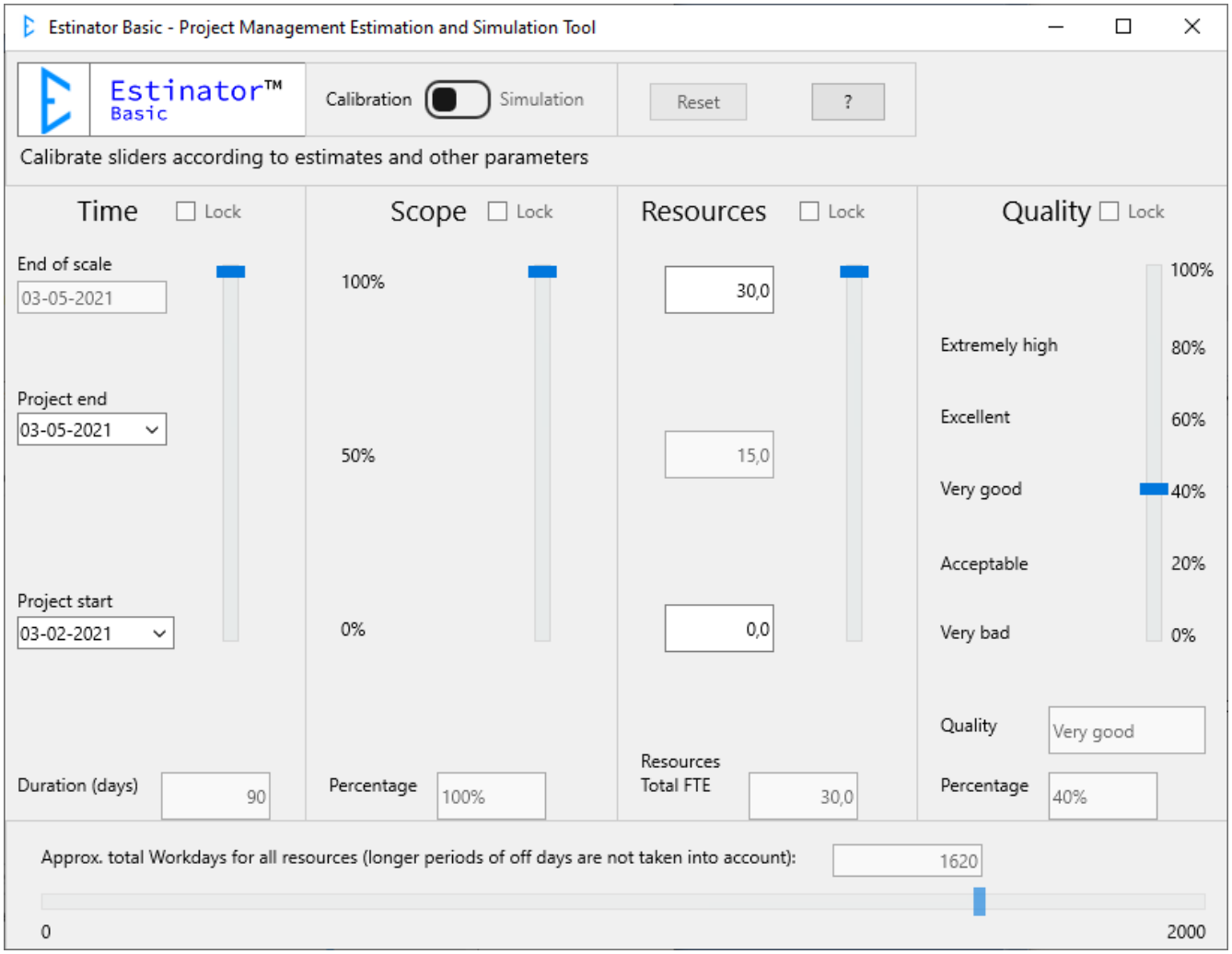
This is done by entering the values you have from your original plans and estimates in calibration mode. Then you can go into simulation mode and experiment with how changes to one parameter can be achieved by changing other parameters.

Estinator Basic has the following features:

- Installer for Windows
- Entering plans based on estimates
- Registration of start and end date of the project
- Scope registration from 0% to 100%
- Registration of resource consumption
- Registration of expected quality measured on resources
- Estimated consumption measured in working days
- Simulation of changes to original plan
- Automatic parameter conversion for changes
- Reset simulation back to start values
- Assistance for finding the optimal balance in the project triangle
- Built-in mini guide

Start up of application

Once the program has started, you will go directly into calibration mode, and the system has pre-filled the parameters with default values:



There are four different parameters that can be adjusted, and they are explained in detail here:

Time

Here we are talking about the time it takes for the whole project to be completed (or the part of it that you run through this simulation tool). The system works with a start and end date, which can be changed either by selecting the date fields or by dragging the slider up and down.

Scope

Scope indicates how big a part of the project you are working on. Normally you start with Scope at 100% and can then reduce it in the simulation. Is changed by dragging the slider up or down.

Resources

Resources indicate those involved in delivering the product. More preciste we are talking about the time spent either manufacturing or delivering the product as well as the time spent doing QA.

An easy way to understand it is that it covers the team that is responsible for manufacturing the product. If a project consists of a project manager and a team of a scrum master, a product owner / business analyst as well as four developers and two testers, you need to look at who is primarily responsible for the progress and who is primarily concerned with quality assurance. Here you might choose to say that the team consists of seven people, as the project manager and scrum master do not count in these accounts.

If you are working with some kind of agile framework, you will usually just select the size of the agile team(s) here, as everybody is usually assumed to be 100 % allocated in this case. FTE means Full Time Equivalent, so in case of shared ressources, you have to convert the hours spent into the equivalent of full time resources.

Quality

In this simulation tool, we have chosen to link quality with the resources that help ensure quality as a percentage of the total team. In the example above, it is two out of seven, i.e. 28.57%.

Think of this as the time the team spends on doing QA as a percentage of the total time spent by the team.

Once you have filled in the four parameters based on the known figures in the plan (ie based on the current estimates) you are ready to simulate.

Simulating

To simulate, simply move the switch at the top of the screen from Calibrate to Simulate.

It is now possible to simulate changes to the four parameters two at a time.

If, for example, you want to change the time, then you have to choose whether what you want to achieve this by also changing the scope, resources or quality.

You can keep simulating by moving the sliders up and down, thus finding a balance where you are satisfied with the shown compromise. Then you go back to your usual planning tools to find out if this is at all possible.

Press Reset to return to the starting point. Press ? to get help and information about the application.

If you want to work from other estimates, you can just go all the way back to calibration by moving the switch back to Calibrate and start from scratch.

Examples

Below, examples are explained in detail:

Exampel - case 1:

A customer and a supplier have been working together for some time to build a new product - an ERP system for example. Based on the preliminary development work as well as the detailed clarification work with the business needs and requirements (backlog grooming/refinement), the supplier has prepared some estimates for the main tasks or User Stories (eg. based on story points) and on basis of this made a schedule for when the rest of the product can be delivered at the earliest.

The supplier states that it takes approx. seven months to finish the rest of the project/product.
This is based on the whole product being finished and tested, ie. 100 % scope. Only acceptance tests (hand over test) and the actual implementation in the organization (teaching, roll-out, commissioning/release) remain.

The supplier has a team of 11 people on the task full time. Of these, 3 only work with tests (two technical testers and a test manager who also tests himself). The others all work with progress in the project (primarily developers).

The above case is the starting point for all of the following scenarios

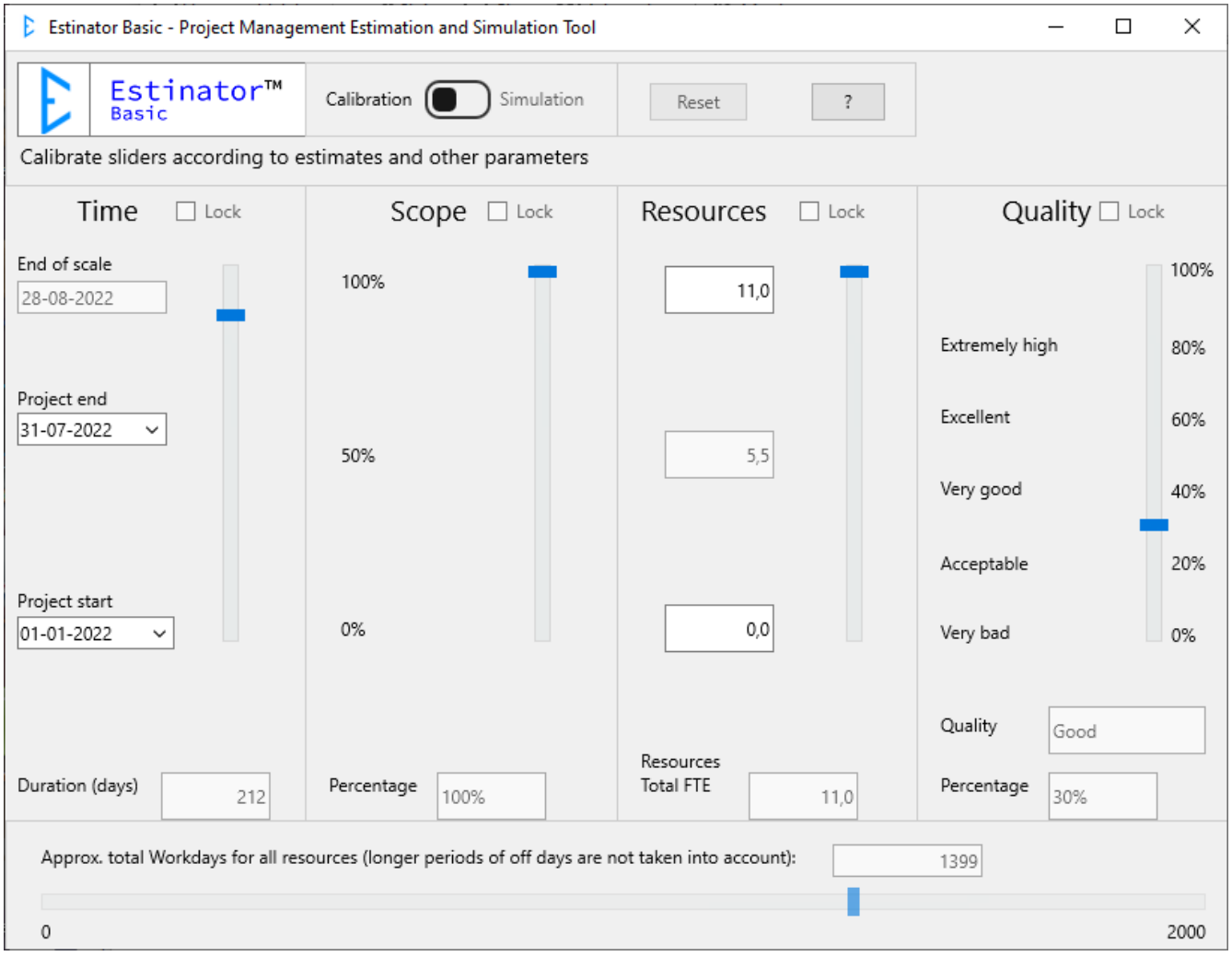
Scenario 1: How do we finish earlier?

The customer would like to be finished in five months instead of seven months. How is that possible?

We start by entering the basic plan into the system:

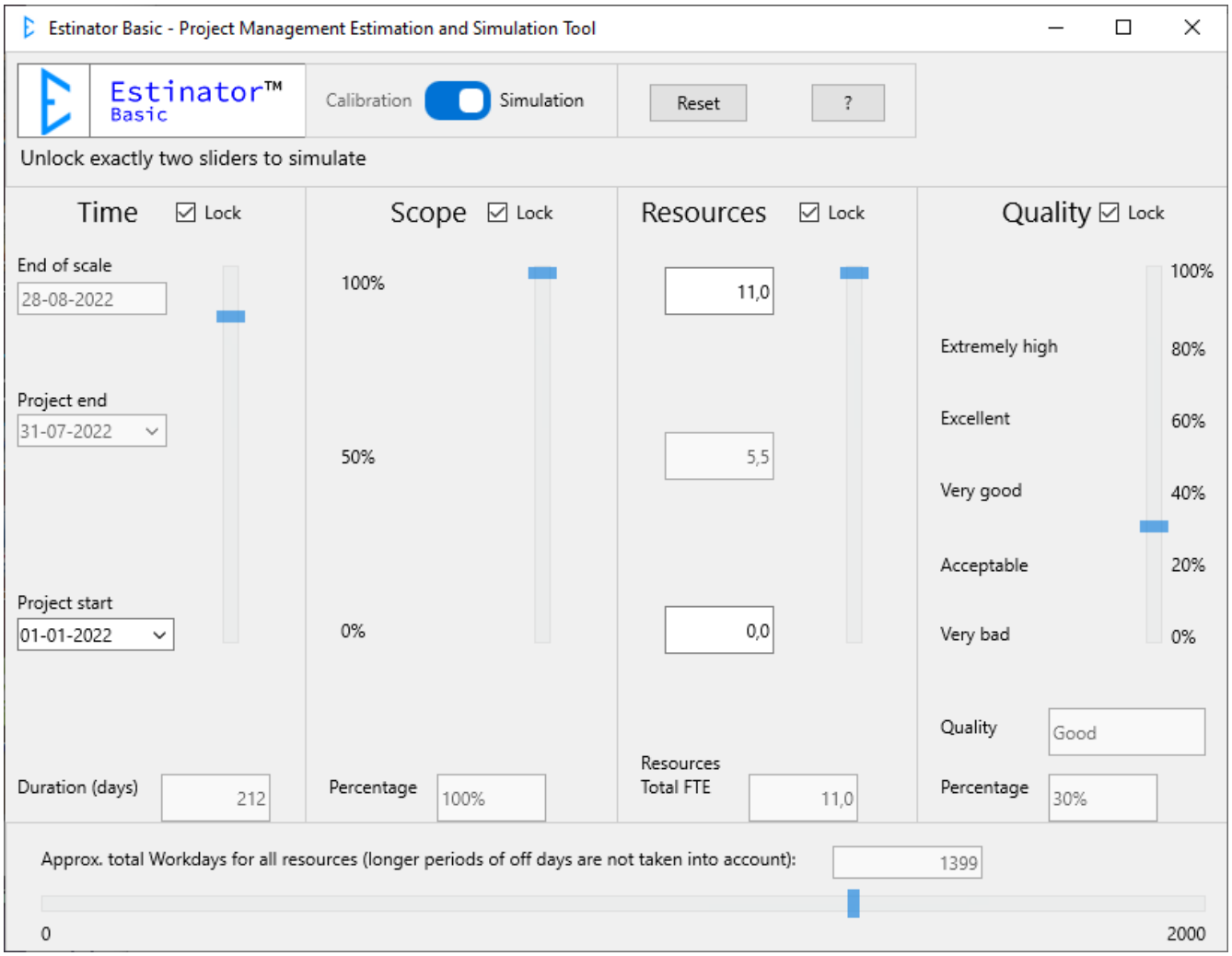
- Time = 7 months
- Scope = 100%
- Resources = 11 full-time employees
- Quality is set to just over 3/11, e.g. to 30%. In other words, the resources spend on average 70% on progress and 30% on quality work.

Then the screen should look something like this:



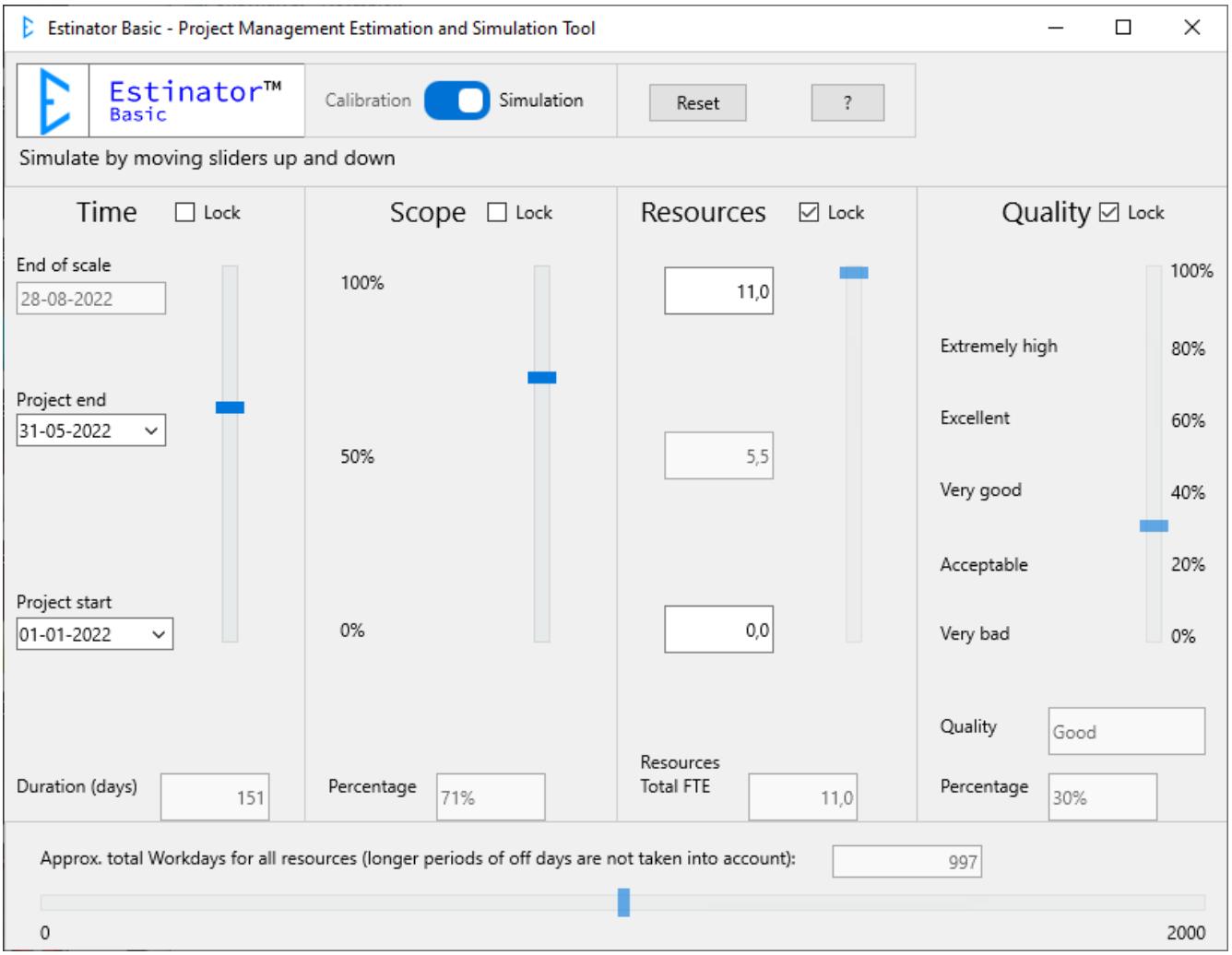
This screen now represents the project triangle as it appears at the start of the project. Ie. how is the relationship between the various parameters.

Now we move the switch at the top from Calibration to Simulation:



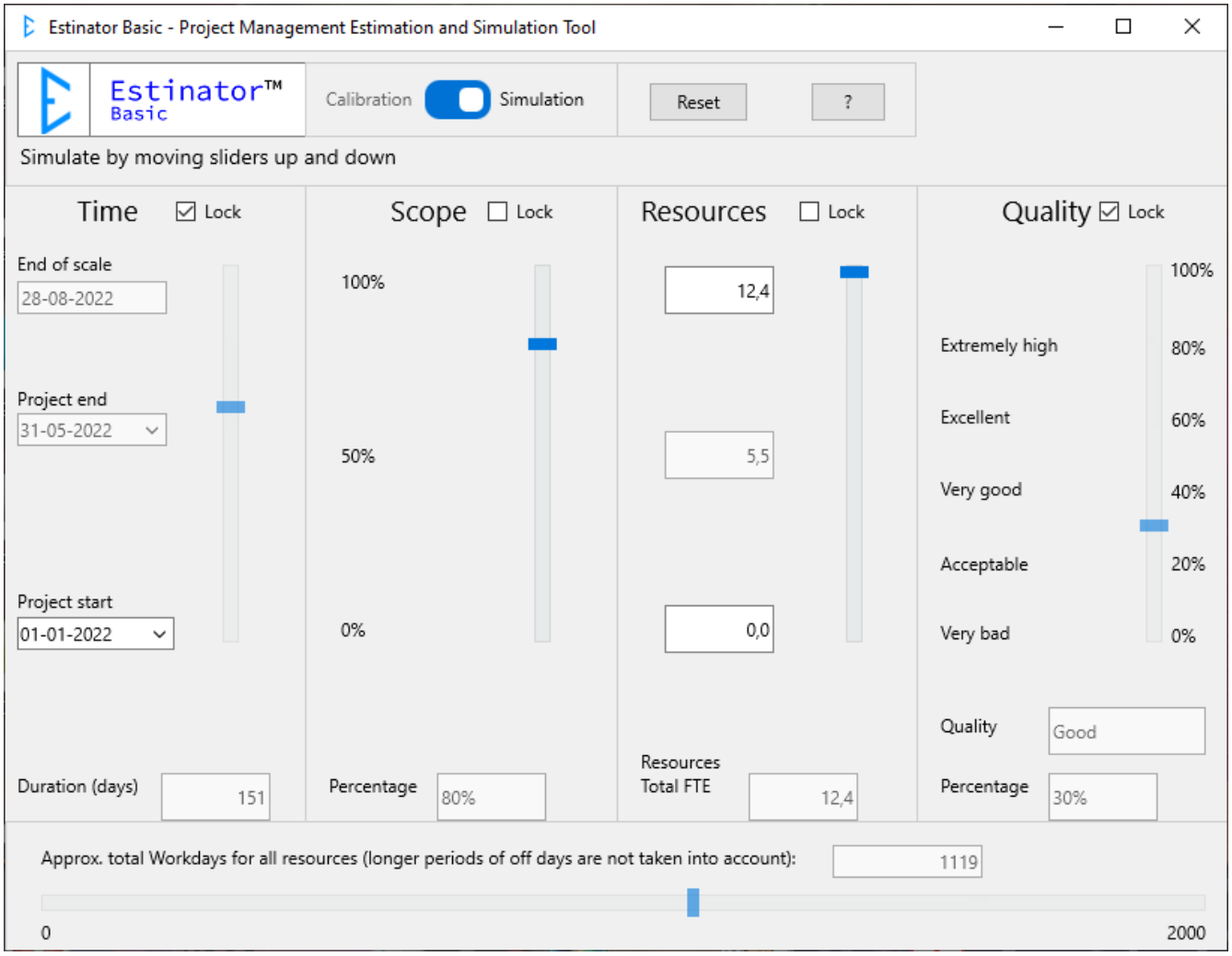
Now the system indicates that we can unlock two sliders at a time to simulate. At the same time, we can see that each of them now has a lock function and indicator.

We now need to figure out how to reduce seven months to five months. You can start by exchaning this with a pure reduction of scope by unlocking the first two sliders and moving the time down to five months:



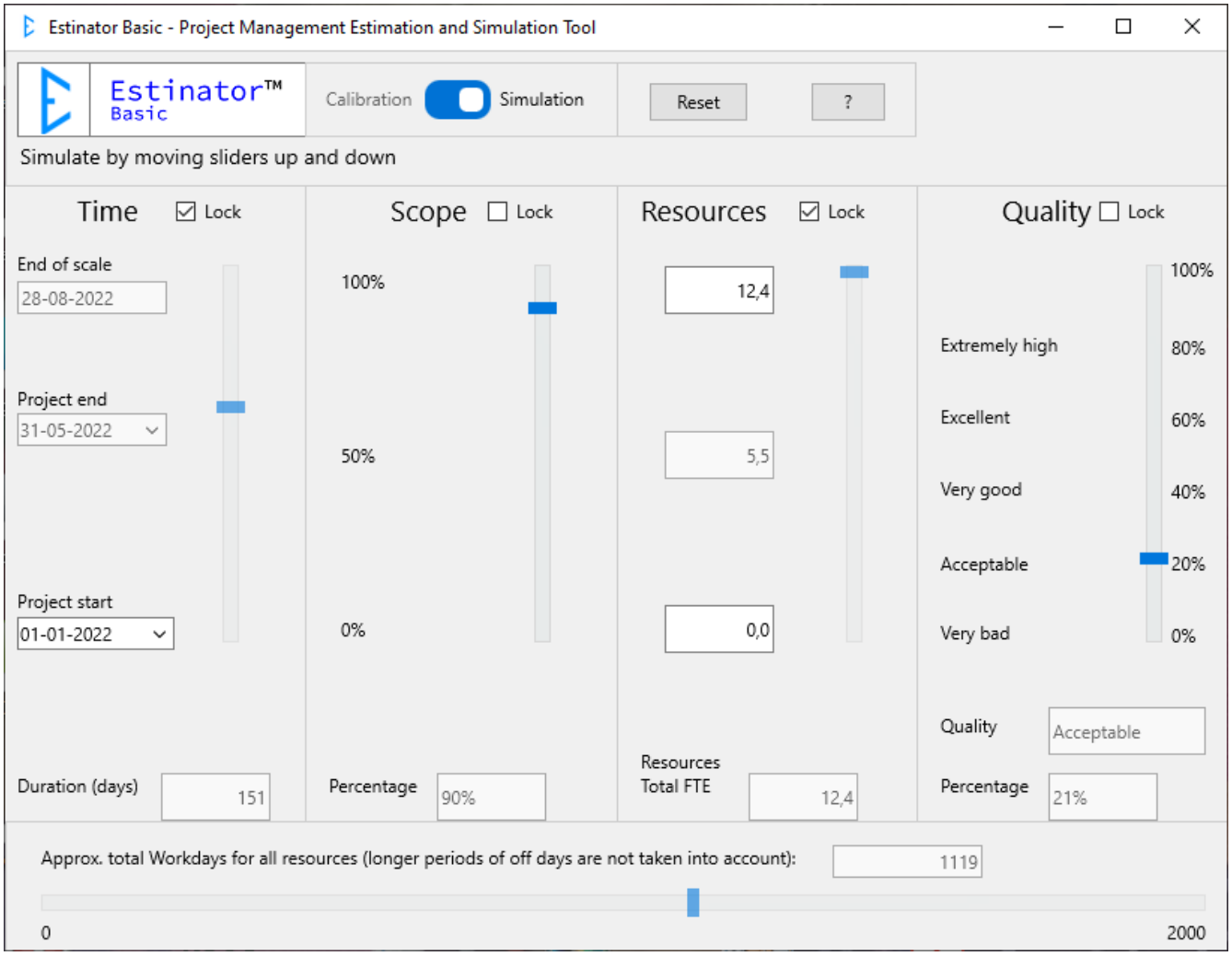
So we can see that we could theoretically get a reduction in time of two months just by reducing the work to about 71 %. But what if the customer doesn't want this huge reduction of the product?

Now we can simulate further by locking the time and unlocking the next slider: Resources. Let's see what happens if we move the scope up from 71% to 80% by adding more resources instead.



We can now see that we simply by adding what corresponds to approx. 1.4 full-time resources can theoretically get to approx. 80% scope - even though we still plan with a time period of five months.

Finally we can see if we can achieve more, e.g. get the scope a little further up, by also including the last parameter: Quality.



We can now see that we could actually finish faster if we include all the parameters.

But this is a very theoretical consideration, so how do you verify this in reality? To answer this you will have to go back to the project's usual tools and find out the following:

1. Does the new timeline hold, or are there other things that can affect it, e.g. holiday periods or external dependencies?
2. Is it possible and realistic to reduce the scope of the product as stated?
3. Can youe add the necessary resources in a way that they can make any difference? Pay attention here to whether training is needed. In that case, 1.4 resource may not be enough (and for practical reasons this might be two physical persons, changing the balance slightly).
4. Can we redistribute resources so that we now focus a little less on quality than before? We now have a team corresponding to approx. 12.4 full-time resources, but they now have to spend 79% of their time on production and only 21% on quality assurance.

All this is outside the scope of the tool and requires you to review your plan critically. Estinator can not solve all the planning challenges - only give a hint about the right direction.

We can also see that the economy has changed so that the product becomes cheaper. This is due to the fact that the product is now smaller in size and can allegedly have a lower quality. We have achieved a reduction from approx. 1399 working days to 1119 working days = a saving of approx. 20%.

Other detailed scenarios will be developed later, but some of the possibilities are outlined below:

Scenarie 2:

The customer wants to deliver a minimal system as soon as possible and then take it from there.

MVP solution

If the customer would like to have an MVP (Minimally Viable Product), we start by looking at scope.

It will be easier if you have already decided on which parts of the product to launch first or perhaps instead a number of possible scenarios.

If e.g. a customer wants to know when a solution with a 20% scope of the full product can be delivered, you can start the simulation with moving the scope down and then exchange it with one of the other parameters, typically time. Afterwards you can fine-tune the other parameters as needed.

When you are satisfied, you go back to your usual planning tools and see if the proposed solution is feasible at all. Be aware that Estinator makes some naïve assumptions that need to be verified by humans.

You can also use the tool if one of the other parameters has focus and thus priority: If you need to remove a number of people from the team and want to find out how that affects the plan or if you want to get a better quality by increasing the time spent on quality assurance, this can be simulated in exactly the same way as the first examples.