Estinator™
Plus

Estinator Plus
User Guide

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For details about Estinator™ see www.estinator.com

Version 0.1
This edition is applicable for version 1.30 and later of Estinator Plus. Screenshots are not necessarily from the latest version, and certain details might vary.

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Introduction to Estinator Plus

Features

Estinator 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. Note how changes to one parameter can be achieved by changing other parameters.

The application exists in two editions: Estnator Basic and Estinator Plus.

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

Estinator Plus can be used just like Estinator Basic but has some additional features:

- Work week and holiday calendar instead of a calculated calendar
- Possibility to add a backlog/project plan for easy scoping
- Reporting tool based on simulation

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:

Calendar

Before working on the system, check the calendar. To do this, tap the three lines next to Time, and the calendar window will appear:

At the top right is the number of working days per week. It is indicated as a number from 1 to 7, and the system assumes that the working week always starts on a Monday. Should this not be the case, it only affects the exact date shown , not the simulation itself.

For example, if you work four days from Monday to Thursday in this project, you simply change it to 4: Mon-Thu, and non-working days are now automatically set as 'weekend':

Changes made here are automatically saved when you select 'Back to main'.

Public holidays and vacation

You can now specify public holidays and, if necessary, vacation. It is suggested to start by loading a file with official holidays corresponding to the specific country or region and period in time. You can download holiday periods from estinator.com. If you are missing certain areas or periods, please write to support@estinator.com with details (you can also create the periods yourself).

Tap the 'File Open' icon and browse to the locaton of the downloaded holiday periods:
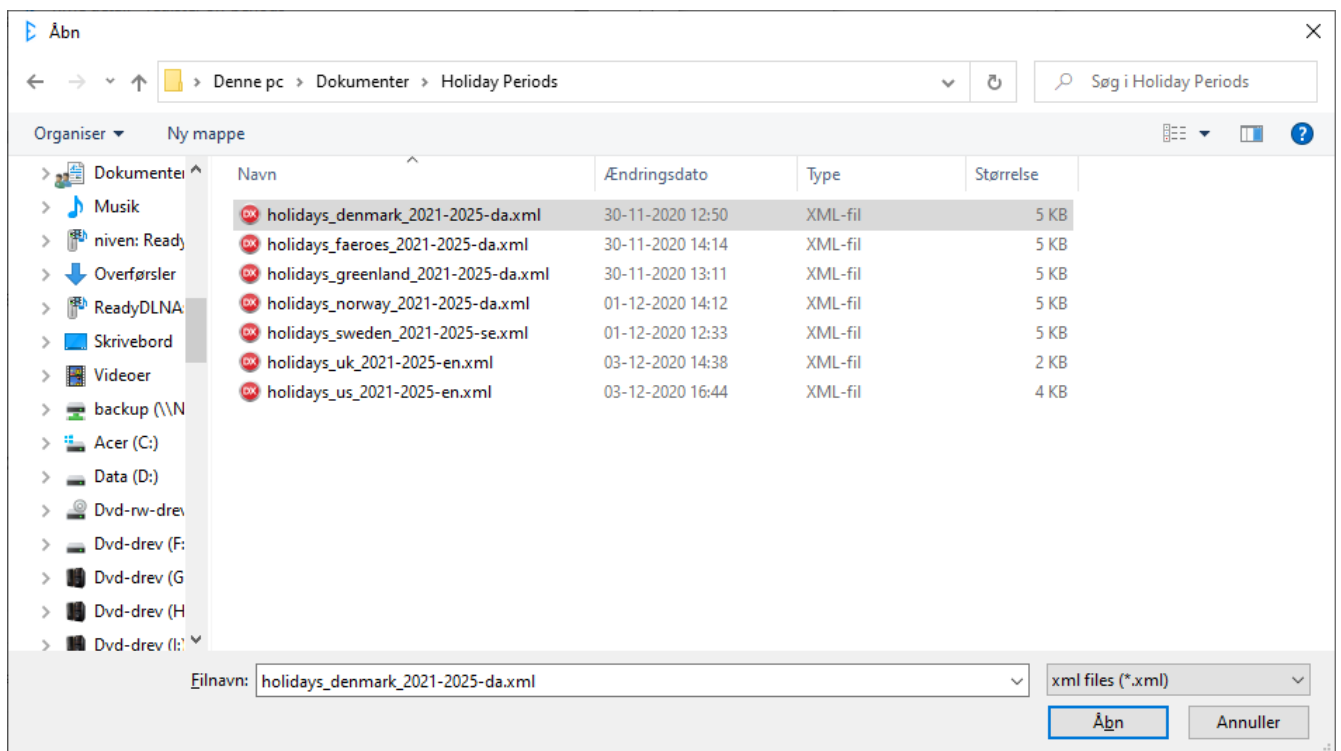
For example, locate the current period for UK and select Open.

You can now see that the holidays have been inserted by checking the dates that have a blue outline, for example New Year's Day in this example:

You can perform additional checks by first browsing in the month overview and then click on one of the holidays:
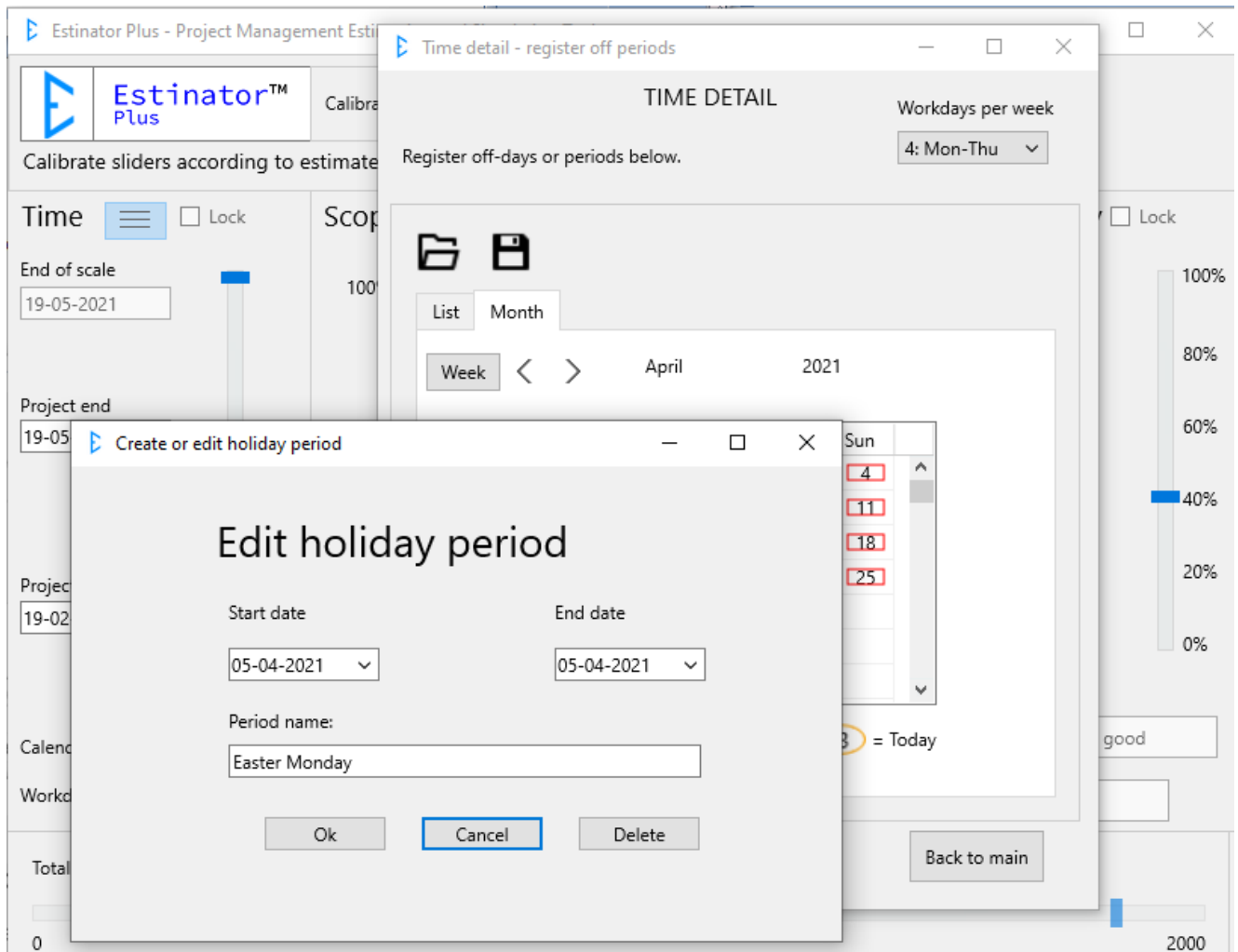
Use Cancel to return to the calendar overview.

You can also select 'List' to see all holidays shown in a list:

Start	End	Text
01-01-2021	01-01-2021	New Year's Day
02-04-2021	02-04-2021	Good Friday
05-04-2021	05-04-2021	Easter Monday
25-12-2021	25-12-2021	Christmas Day
26-12-2021	26-12-2021	Boxing Day
01-01-2022	01-01-2022	New Year's Day
15-04-2022	15-04-2022	Good Friday
18-04-2022	18-04-2022	Easter Monday
25-12-2022	25-12-2022	Christmas Day
26-12-2022	26-12-2022	Boxing Day

TIME DETAIL

Register off-days or periods below.
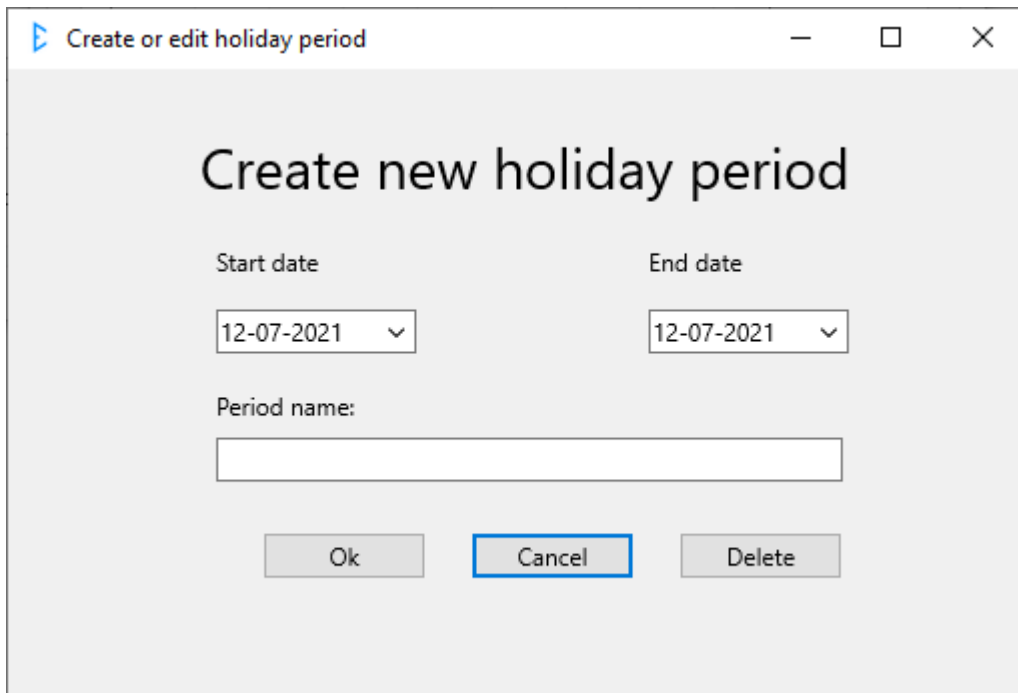
Workdays per week: 4: Mon-Thu

List | Month

Number of periods: 25

Delete all

Back to main

Vacation periods

Now we can add our own vacation/holiday periods for the team. Start by setting the work week back to 5.

Remember that the vacation periods affect the entire project and are registered for whole working days only. If you need to record smaller and more dispersed periods, you can register it for single days instead of creating a longer period.

In the example here, we want to add three weeks of summer holidays into the period July 12th - July 30th (weeks 28, 29 and 30) in 2021. Start by browsing for the month of July in the monthly summary, and then click on the first day of absence, here Monday, 12 October.July (or Saturday, if you prefer):

The week numbers can be switched off by clicking on 'Week'.

The start date is now pre-filled, so you only need to fill in the end date and a description of the period:
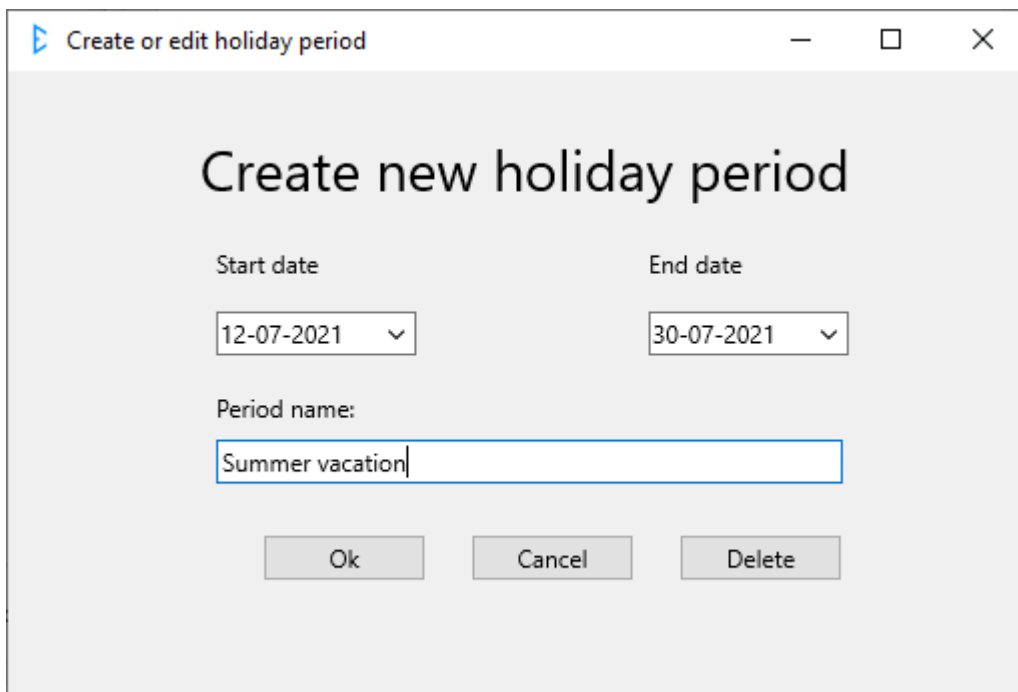
Fill in the details and select 'Ok':

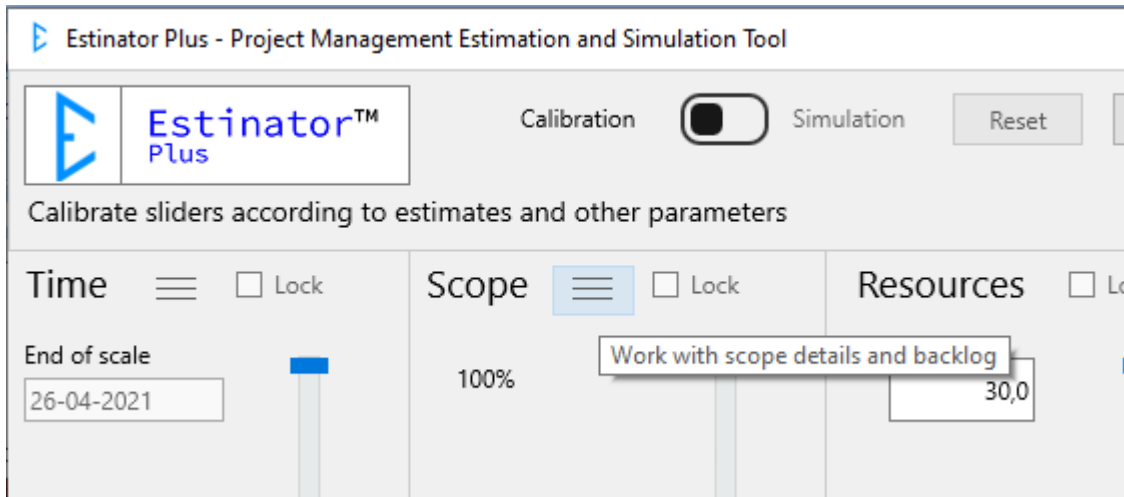You can now see that the period is registered as an absence in the project:

Go back to the main screen by selecting 'Back to main'.

The effect of registering days per week, public holidays and vacation periods is seen when working with the time slider on the front page of Estinator Plus, since you can now only work with the days that are actual working days, unlike Estinator Basic that works with calculated working days.
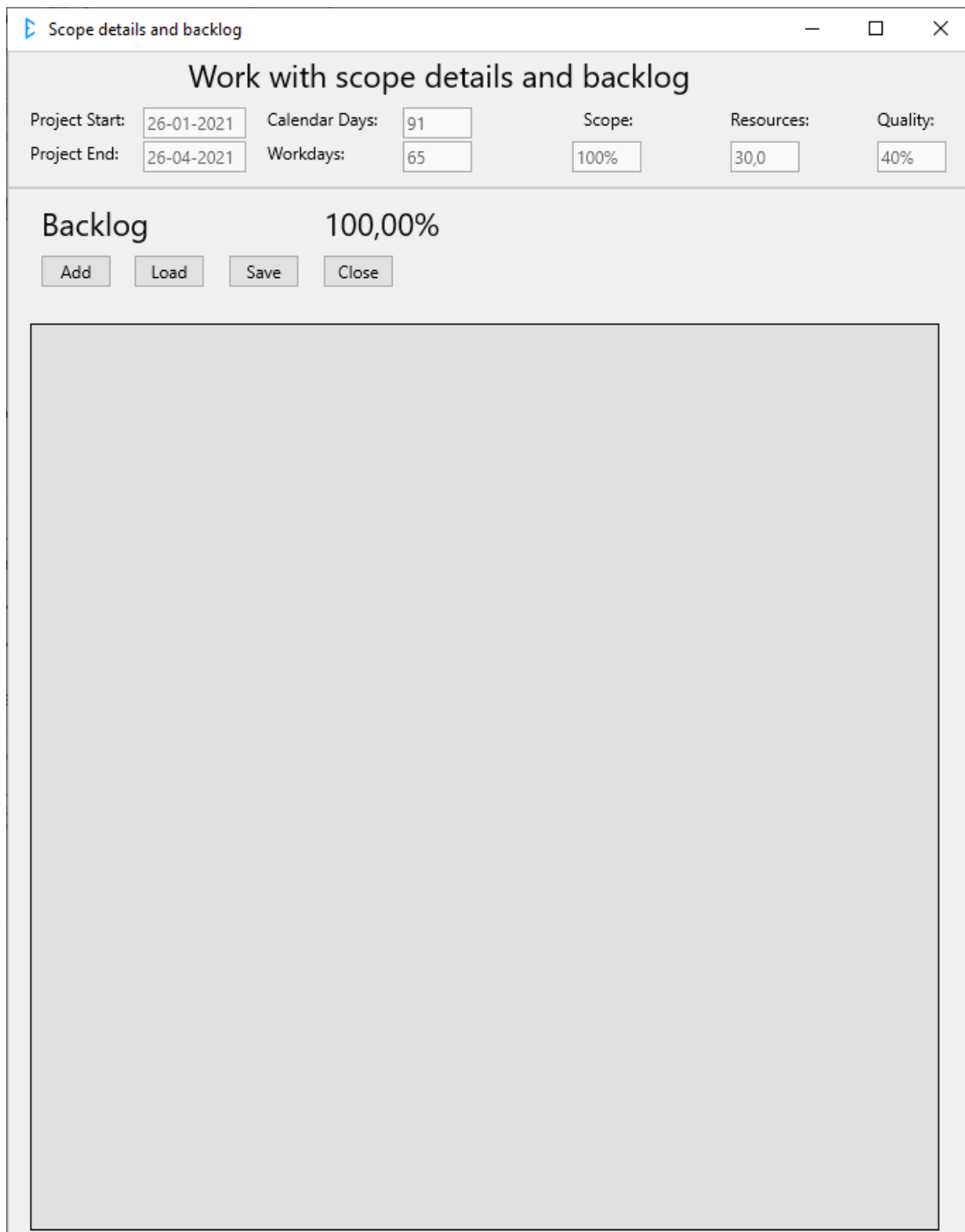
Project plans and backlog

Before proceeding, consider adding the project as tasks, as this may provide assistance to a possible scoping of the project.

To work with project plans, select the three lines next to Scope:

You now enter a new screen where you can work on your project plan:

For your information, the values from the project triangle are displayed at the top as they are indicated on the front page. These will be different if you have first worked with them before entering this screen.

If you want to add tasks into the plan, you can either add them manually one by one by using the Add button, or you can load the plan from a file that is typically created in another system.

Working with tasks manually

First, we'll see how to manually add tasks. Start by tapping Add. Now you get this screen:

Fields in the plan

Here is a description of each field that can be used and the buttons on the screen:

Backlog ID	Unique identification of task. You are free to use your own system or just use the system that the application suggests. A task or backlog item can be based on anything you like: Features, Requirements, User Stories, Test Cases, Implementation areas, Tasks etc., but be sure to only use items on the same level, and ensure they are not overlapping. Use the ID to link them to other systems if relevant.
Backlog Title	A short heading for the task.
Backlog Summary	A slightly longer description of the task. This does not appear in the overview.
Backlog Estimate	Estimate for each task. The system does not care which unit of measure to use (and does not know it either), but all tasks must be estimated in the same unit. It could be in e.g. hours, working days, weeks, function points, story points or anything else that can be entered as a number.
Edit	Use if you want to edit a task.
<---	Browse back to previous task.
--->	Browse forward to next task
Delete	Delete the task (after confirming this).
Save	Save task and close.
Save and new (Save and next)	Save task and go to next.
Close	Close the screen

Let's register a task and save it:

Then it looks like this in the overview:

Work with scope details and backlog

Project Start:	22-02-2021	Calendar Days:	90	Scope:	Resources:	Quality:
Project End:	09-06-2021	Workdays:	62	100%	30,0	40%

Backlog 100,00%

Add   Load   Save   Close

PBI-001

My first task

| 10 | 100,0... |

Let's enter some more tasks and see what the overview looks like:

Note that the tasks have been given different colours. The system adjusts the colours continuously so that the largest tasks have a red colour. Next comes purple, orange, yellow and finally white for the smallest tasks. This makes it easier to get an overview of the entire plan concerning large and small tasks. If you need to edit the plan further, you can now browse between tasks, correct, add tasks or details, delete, and so on. Or you can save the plan for later use.

Working with a plan from another system

You can also import a plan from another system. In this case, you must have it converted into a format that Estinator Plus can read: Comma separated files (CSV files). You can easily create this from Excel, for example, after exporting from the other system. The file must have columns that match the fields above, and look something like this:

	A	B	C	D
1	ID	Title	Summary	Estimate
2	PBI-001	My first task	This is my first task	10
3	PBI-002	Another task	Another task	20
4	PBI-003	Yet another one	Yet another one	30
5	PBI-004	Fourth task	Fourth task	40
6	PBI-005	Five	Five	50
7	PBI-006	More tasks	More tasks	60
8	PBI-007	Final task	Final task	70
9				

The system tries to report errors back to the user if it cannot read the file. It must be stored with UTF8 encoding and must use either comma or semicolon separating. Use the Load button to get a plan into the system:
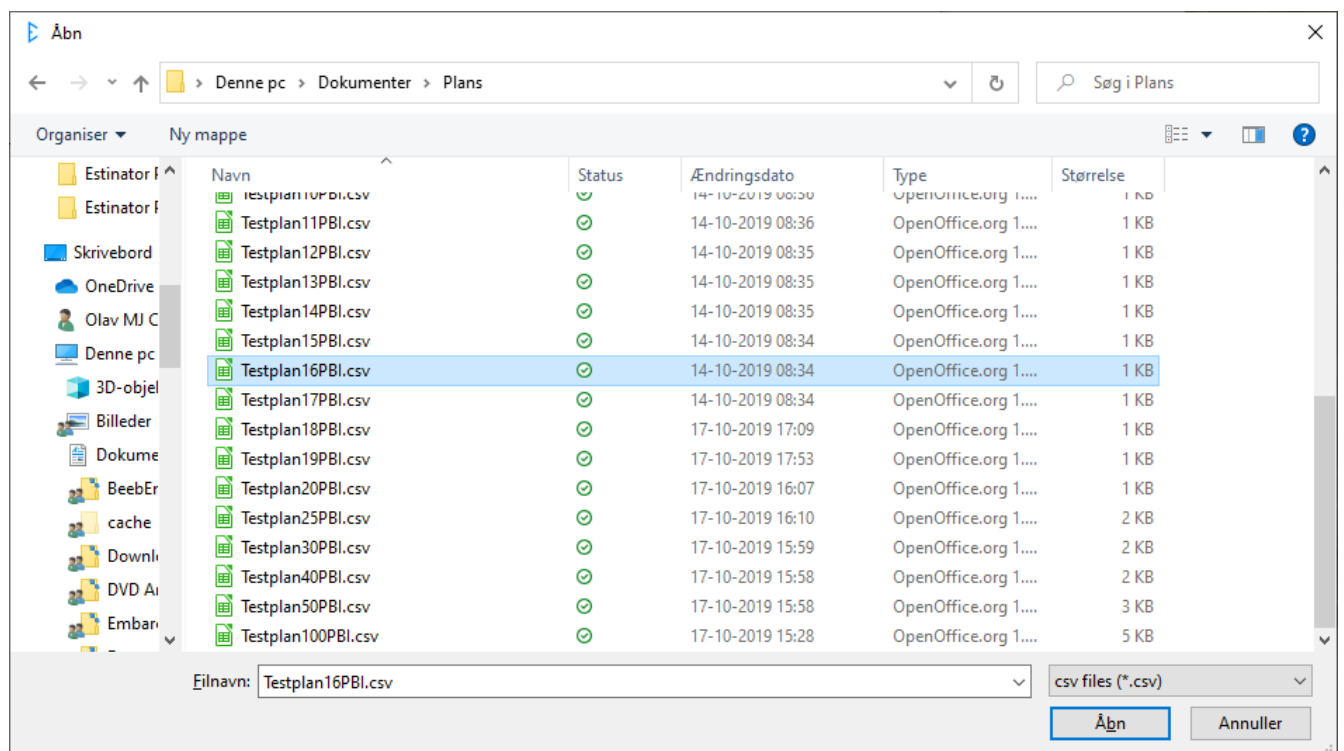
If you have imported a larger plan, for example, it could look like this:

When you're done, you just close the scope screen with Close.

Visual indication of plan

Back in the main screen we can see a visual indication that we have registered a plan, since there is now a small asterisk under the Scope menu:
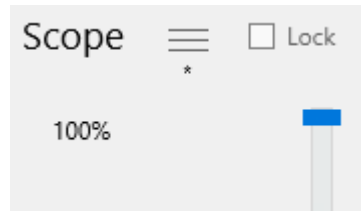
We can then add other information about the project in the same way as done in Estinator Basic, i.e. the basic parameters from the estimates for time, scope, resources, and quality, respectively. This is described in the following section.

Parameters in the project triangle

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 you 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 precisely 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 numbers.

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 (i.e. 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:

Example - 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.

As we are now in Estinator Plus we can furthermore see that we have an indication of a loaded plan, currently set to 100 % scope. Also, there is a traffic light.

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

Estinator Plus - Project Management Estimation and Simulation Tool — □ ✕

Estinator™ Plus

Calibration ⬤ Simulation | Reset | ? | Report

Simulate by moving sliders up and down

Time ≡ ☐ Lock	Scope ≡ ☐ Lock 100,00%	Resources ☑ Lock	Quality ☑ Lock
End of scale 15-08-2022	100%	11,0	100%
			Extremely high 80%
Project end 31-05-2022 ⌄			Excellent 60%
	50%	5,5	Very good 40%
			Acceptable 20%
Project start 03-01-2022 ⌄	0%	0,0	Very bad 0%
Calendar days 149			Quality Good
Workdays 102	Percentage 71%	Resources Total FTE 11,0	Percentage 30%

Total workdays for all resources (off days from time detail screen are taken into account): 1122

0   2000

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?

Also, colour has now been added to the traffic light. This is because there is a discrepancy between scope as indicated on the main screen (the 71 %) and scope as selected in the loaded plan (that is currently still at 100 %). We get back to that later.

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 by adding approximately 1.4 full-time resources we can theoretically get to about 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 you 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 resources 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.

Budget

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%.

Assistance to scoping

Here in Estinator Plus we can do much more, as we can work more detailed with scoping. Initially we loaded our plan assuming it was corresponding to 100 % scope. As we have now chosen to only deliver about 80 % scope we can now try to find out what we want to deliver in those five months and what we do not deliver - i.e. postpone to later or not deliver at all.

Tap on the three lines besides Scope:
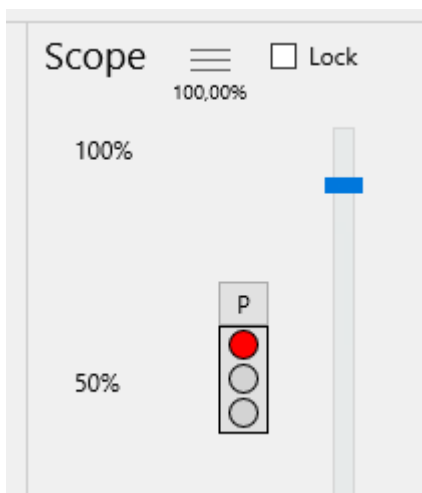
Now we are going to re-enter our detailed scope/planning screen, but since we are now in simulation, it looks a little different. The plan is now divided into what is within scope and what is outside scope:
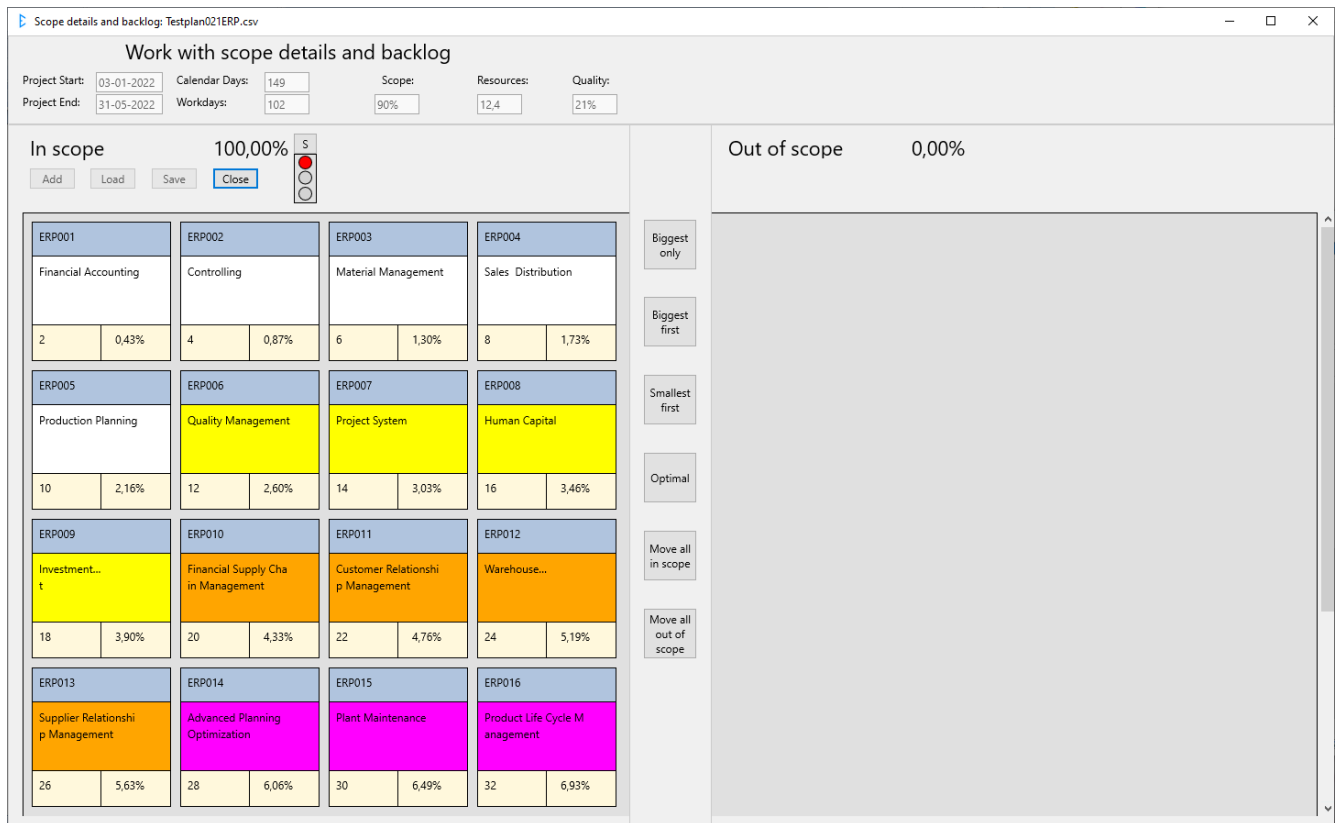
Our traffic light is still red, but the letter above has changed from 'P' to 'S'. This means that we are now looking at the plan from a Scope point of view, ie. whether the selected scope can be accommodated in the selected plan from the front page. On the front, the light curve was shown with a 'P', which indicated the opposite, namely whether the Project Triangle harmonizes with scope in the underlying plan.

If the light curve indicates a P and shows a red indicator, it shows that the selected configuration (balance) of the project triangle does not harmonize with the underlying plane. If it shows red with an S at the top, it shows that the selected scope does not harmonize with the project triangle. To get balance in the plan, both versions of the traffic light must be in yellow or green.

You can view the other version of the light curve simply by clicking on the letter and this way switch between the two modes.

The purpose of these two ways of showing the balance is that you can work in at least two ways: Either the project triangle has priority (if you want to deliver at a faster time, for example) or the project plan has priority (if for example, you want to deliver a minimally scoped solution based on the project plan and only afterwards you will find out how this affects the other parameters in the project triangle).

In our example, we wanted to deliver faster and have cut scope down to approx. 90 %. Now we will try to find out which 90 % we want to deliver by scoping the plan.

There are several ways to work with scoping, either by moving the tasks around with drag-and-drop or by using the large buttons in the middle (all of which will try to keep the traffic light in green). You can use the following different methods or a combination of them:

Manually	Drag tasks between the two areas with the mouse
Biggest only	Move all tasks out of scope and then move only the largest tasks into scope. Stop when there is no more space.
Biggest first	As under biggest only, but move on to the next smaller task as long as there is room.
Smallest first	Move all tasks out of scope and then move only the smallest tasks into scope.
Optimal	Go through all the combinations and find the most optimal.
Move all in scope	Move all tasks into scope.
Move all out of scope	Move all tasks out of scope.

So we now have 100 % in scope, which we wish to get down to below 90 %. How do we do that? Fortunately, the system has calculated the percentages in relation to the estimates, so you can simply take the tasks that cannot be there and move them out of scope. You can e.g. look at the big tasks first and take them out of the plan until the traffic light is in green:

Optimal plan

But you can also let the system try to calculate varoius possible plans, e.g. the optimal one, which in this case looks like this:

When you have finished, you go back to the main screen, which now looks like this:

Report

From here you can now generate a report. Press the 'Report' button to see what the system can tell you about the simulation.

Find more guides and help at www.estinator.com