Practical 4

Introduction to Libre Project

Lab Work:

- Follow the step-by-step instructions to recreate this demonstration project.
- After completing this tutorial, you may use ProjectLibre to draw a Gantt chart for your project.

ProjectLibre Tutorial:

How to use the ProjectLibre software to produce Gantt charts from a work breakdown structure.

Getting ProjectLibre

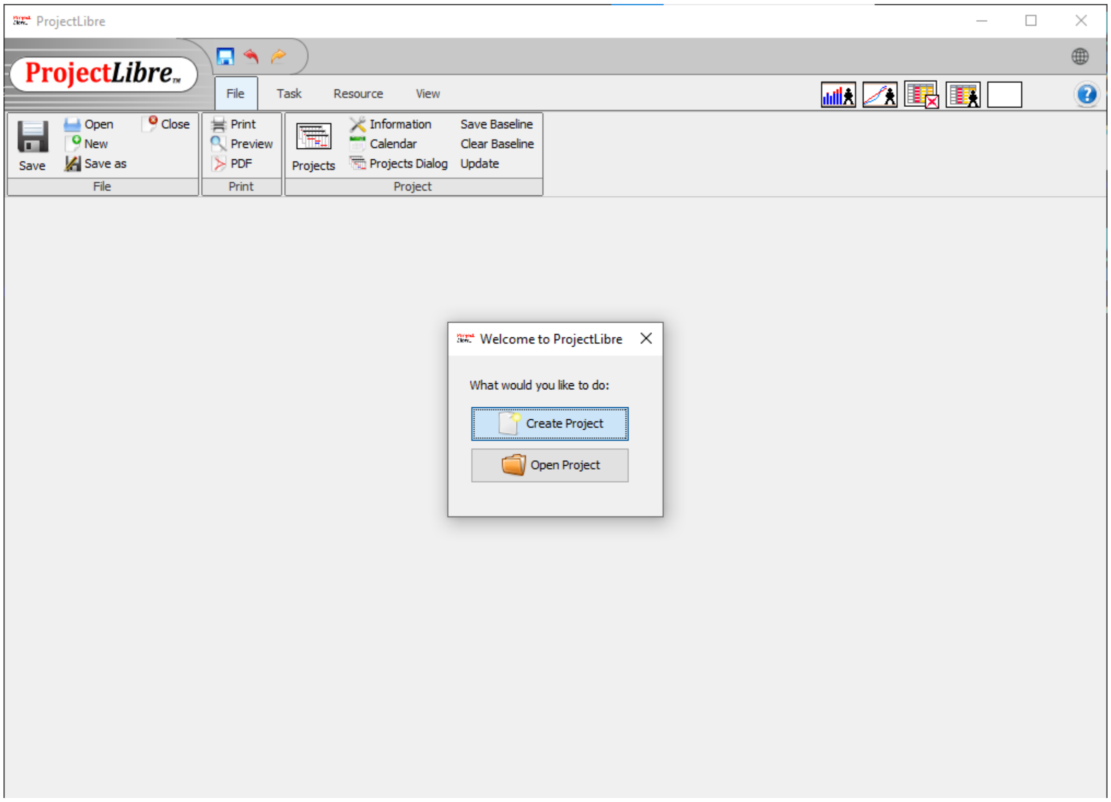
★ You can now more about ProjectLibre following this link: http://www.projectlibre.com/

★ You can download it from the following link: http://sourceforge.net/projects/projectlibre/

★ If you have a Windows Operating System, you can download ProjectLibre at SourceForge. This website also has the latest version for Mac or Linux. Once you have **downloaded and installed** ProjectLibre, you should see a window like this one below.

Getting Started

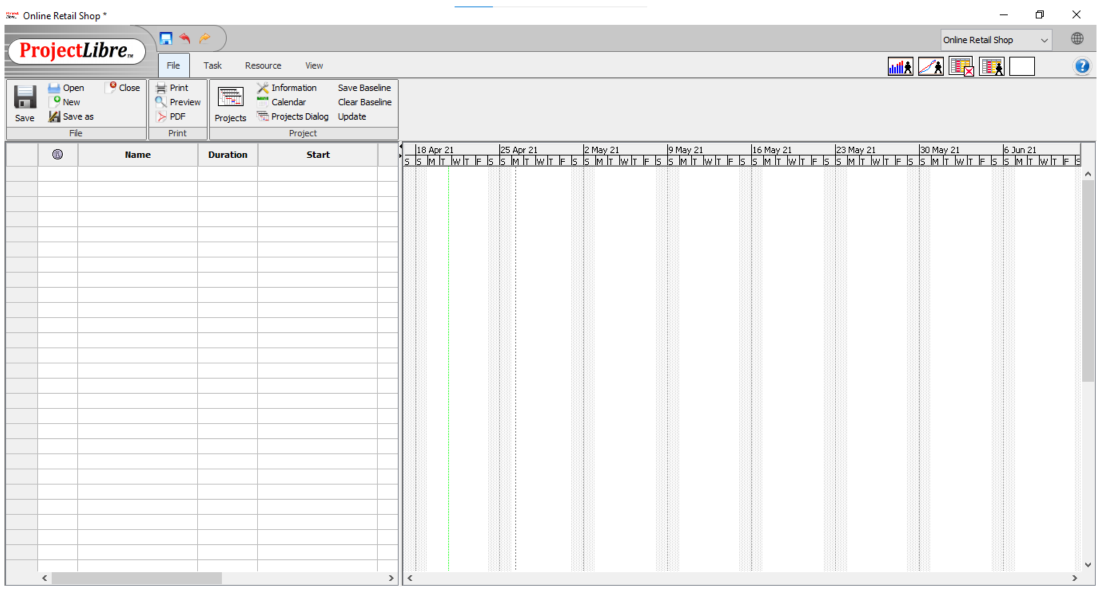
- **Click on 'Create Project'**
  you must enter some basic project details as seen on the screen.



★ **You will need to enter the following information about your project**:
Project Name: Online Retail Shop
Manager: Himanshu Purohit
Start Date: April 26th, 2021
Notes: This is demo project

★ **Forward Scheduled**: If 'Forward Scheduled' is checked, then the project's end date changes according to the task finish dates you enter. If 'Forward Scheduled' is unchecked, then you indicate the project's finish date/deadline. This means that the project has a mandatory, non-negotiable, end date.

★ **Once you click on OK you will get the following screen.**

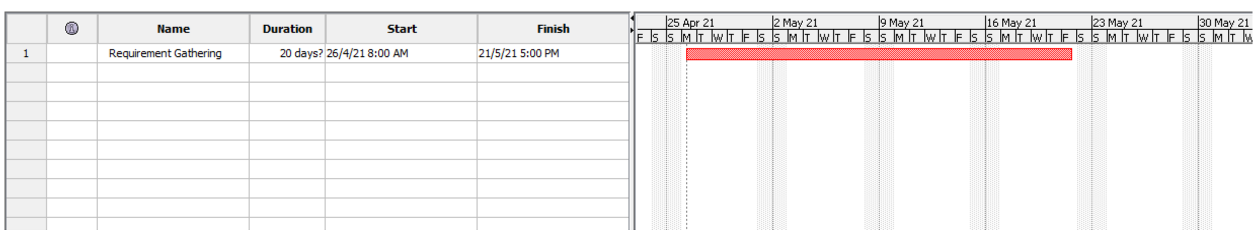


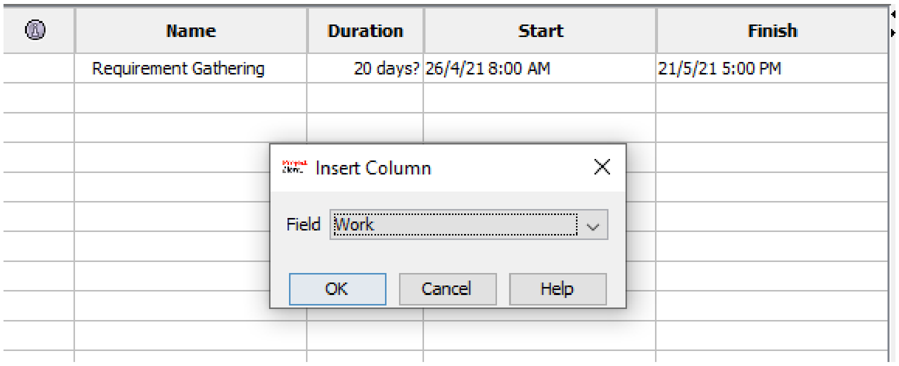
Adding Your First Task

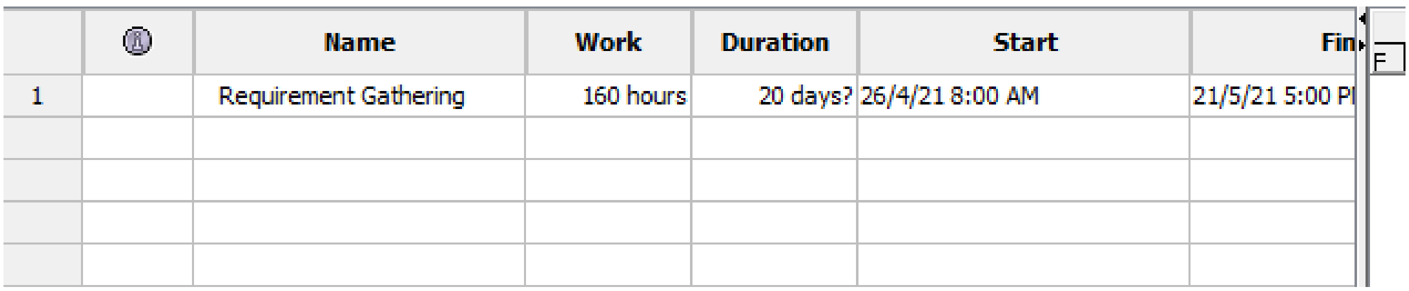
As seen in the table below, type in the appropriate field, the task's 'Name', 'Duration', and 'Start' – the finish date is then calculated automatically. Take a moment to change the 'Duration' from 1 day to 20 days and notice how the chart on the right changes.

On the right of this window, is where you will see the project's Gantt diagram -we will come back to this.

Referring to the image below, you may want to see how many hours it takes to complete a task. You can do this by right-clicking on the column 'Duration', click 'Insert Column', and then choose 'Work'.

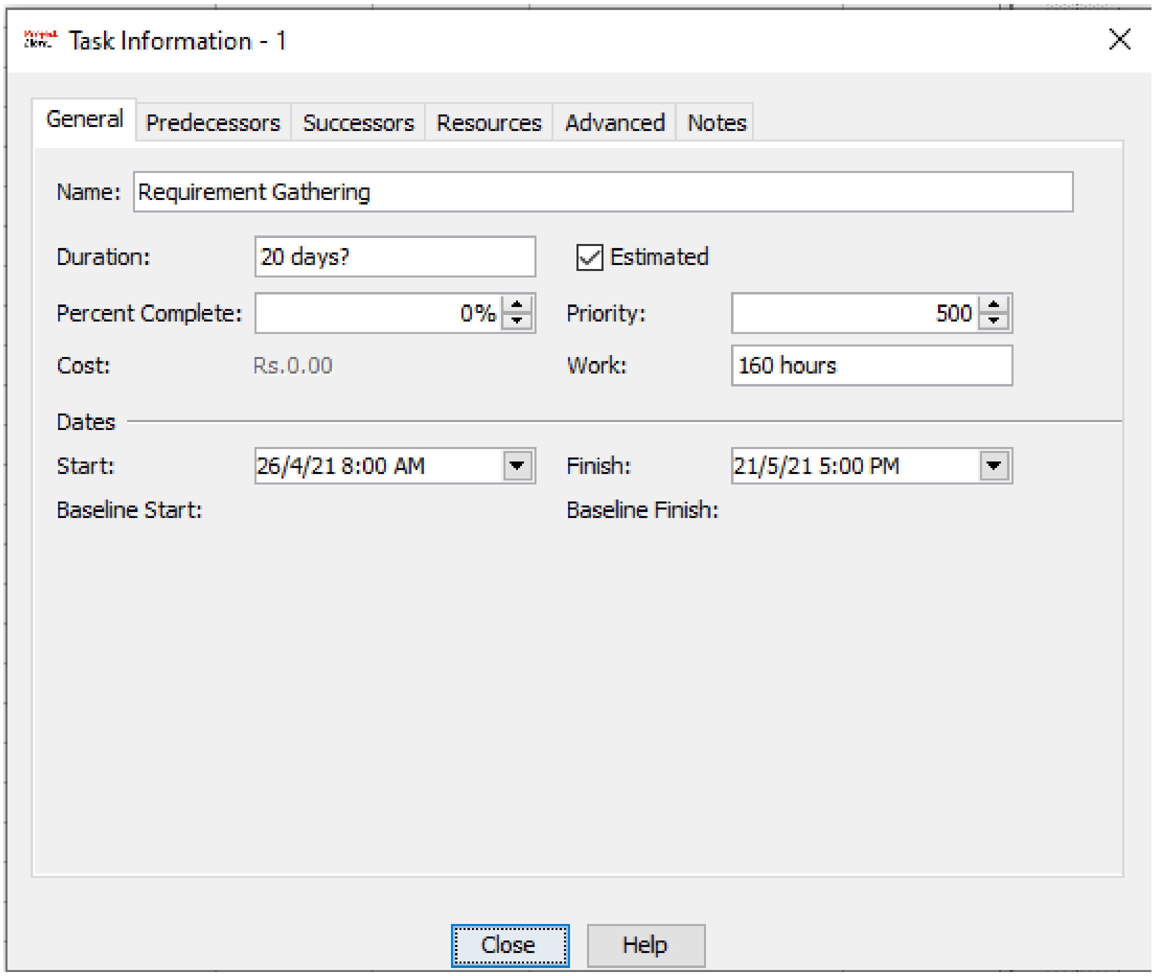






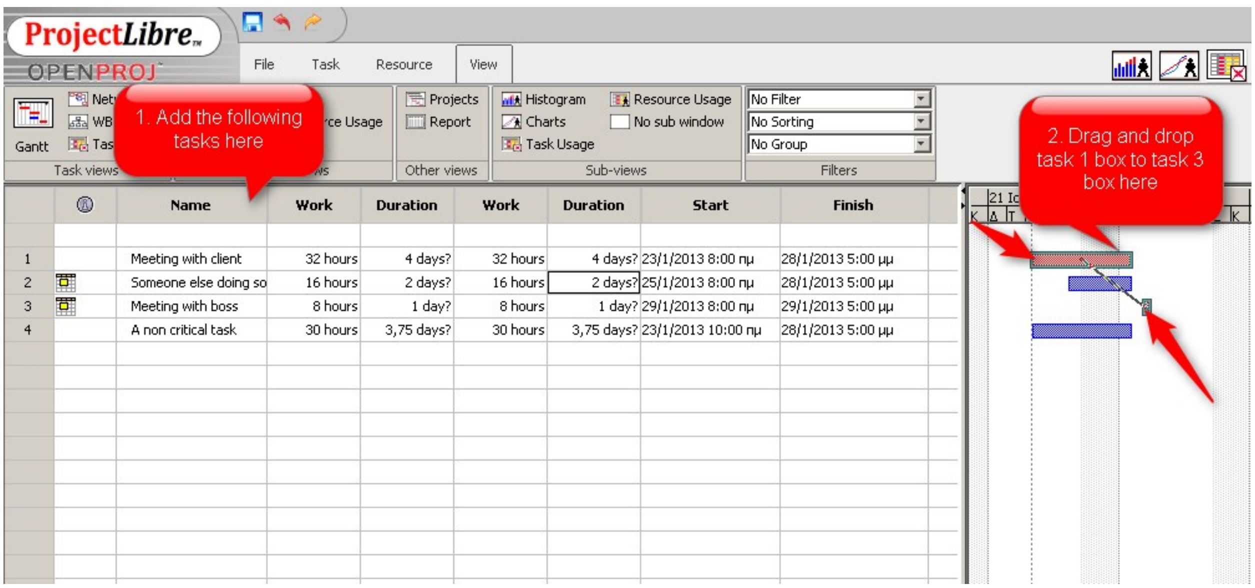
- ★ Now, you can see your task's total hours. After showing the total project's work hours, double-click on the tasks record for different viewing options. For example, double click on the 'Requirement Gathering' text. As seen below, you can see some of the task's options:

- ★ 'Duration' and 'Work' represent the task's duration. 'Start' represents the task's start and 'Finish' is calculated automatically. You can click on 'Estimated' if you are not sure about the task's duration. You will see a question mark near 'Duration'.


Task Information - 1
General
Predecessors
Successors
Resources
Advanced
Notes
Name: Requirement Gathering
Duration: 20 days?
Estimated
Percent Complete: 0%
Priority: 500
Cost: Rs.0.00
Work: 160 hours
Dates
Start: 26/4/21 8:00 AM
Finish: 21/5/21 5:00 PM
Baseline Start:
Baseline Finish:
Close
Help

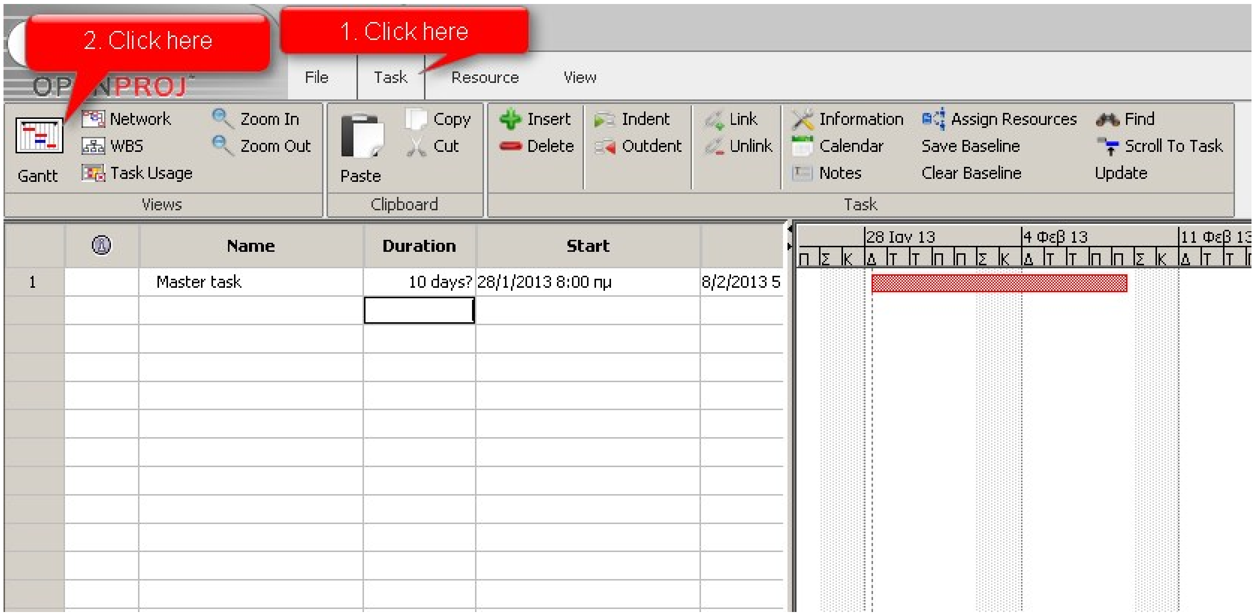
Connecting the Tasks

- ★ One of the most fundamental actions that you will do when planning a project is connecting tasks to one another as the start of some tasks are dependent on another's completion.
- ★ To do this, add tasks as shown in the image below (left) and then drag and drop the first task to the third task as shown on the right of the image.
- ★ Your tasks are now dependent on one other. Red tasks mean task dependency. Blue tasks mean no task dependency.
- ★ As you can see in the image below, this is a great way to visualize your project's critical path.

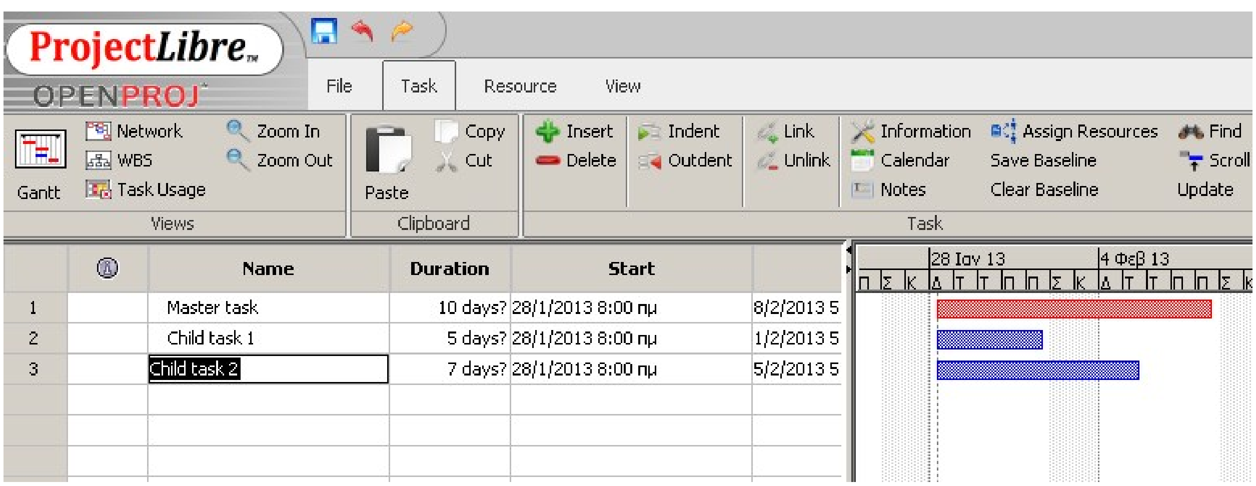


Breaking down tasks

★ Add a task with a duration of 10 days.



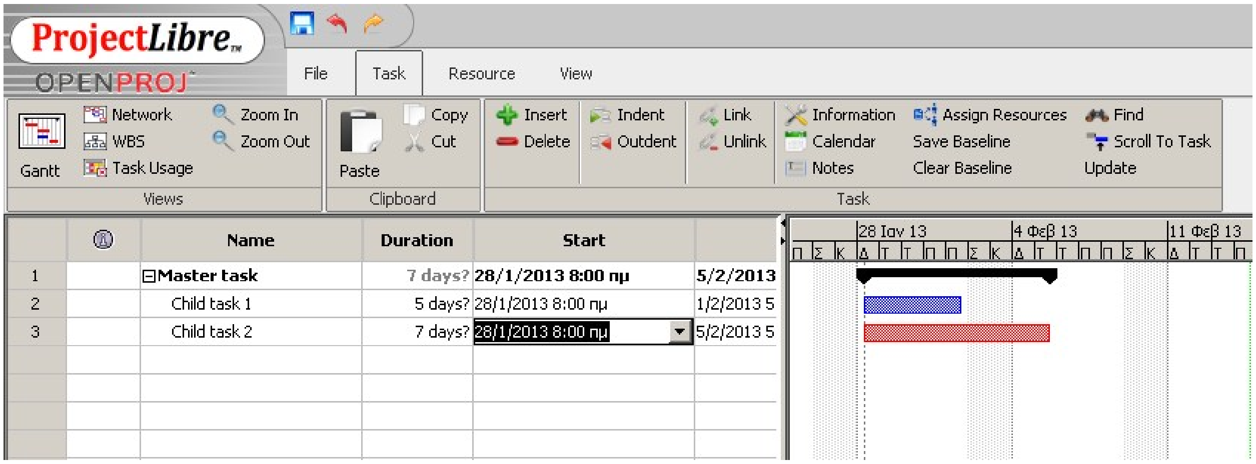
★ Add another task called ‘Child task 1’ with a duration of 5 days and another task called ‘Child task 2’ with a duration of 7 days.



★ connect ‘Child task 1’ and ‘Child task 2’ with ‘Master task’. If you right click on ‘Child task 1’ you will see some options use the ‘Indent’ option. Do the same for ‘Child task 2’.

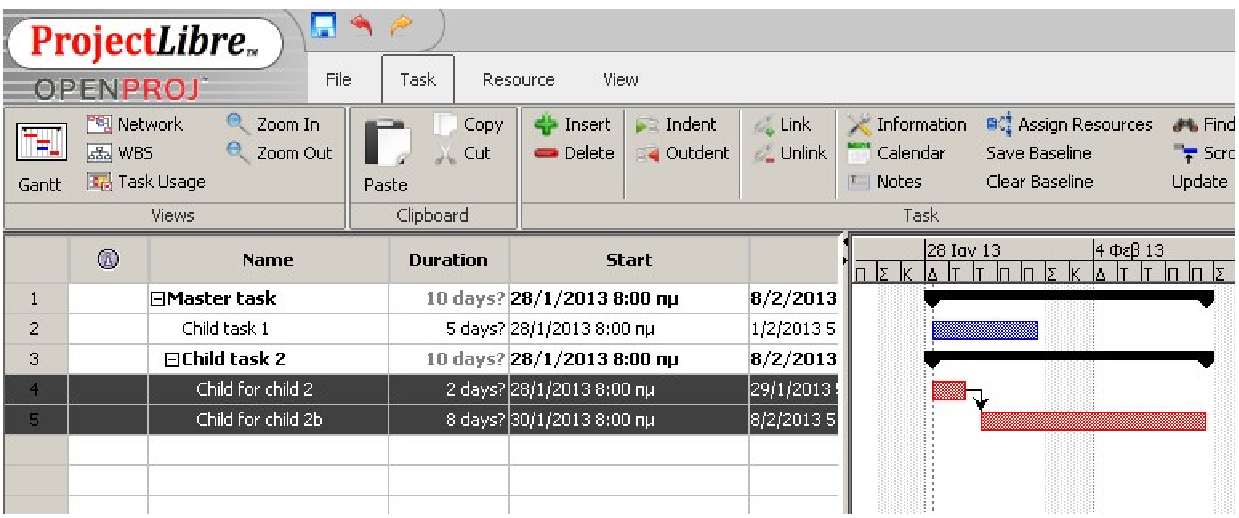
- Both child tasks are ‘enclosed’ to Master task.
- Master task look has changed

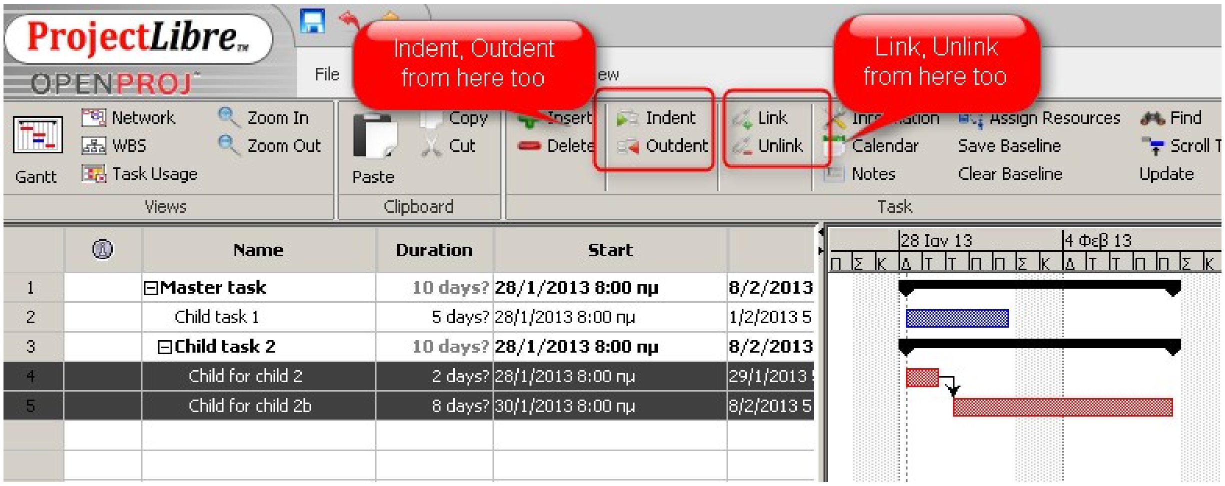
- Master task duration has automatically changed.



★ Below ‘Child task 2’ add ‘Child for child 2’ and ‘Child for child 2b’. Add a duration of 2 days for the first, and 8 days for the second.

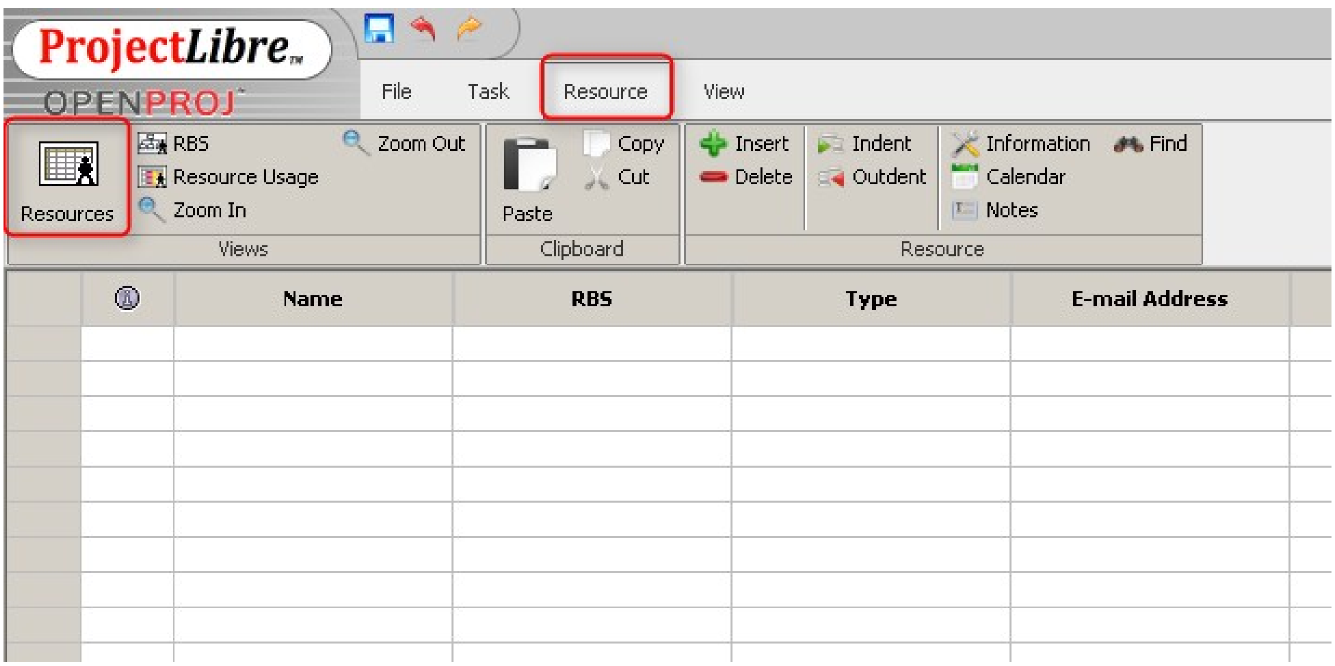
★ Then select both tasks and then click ‘Indent’.



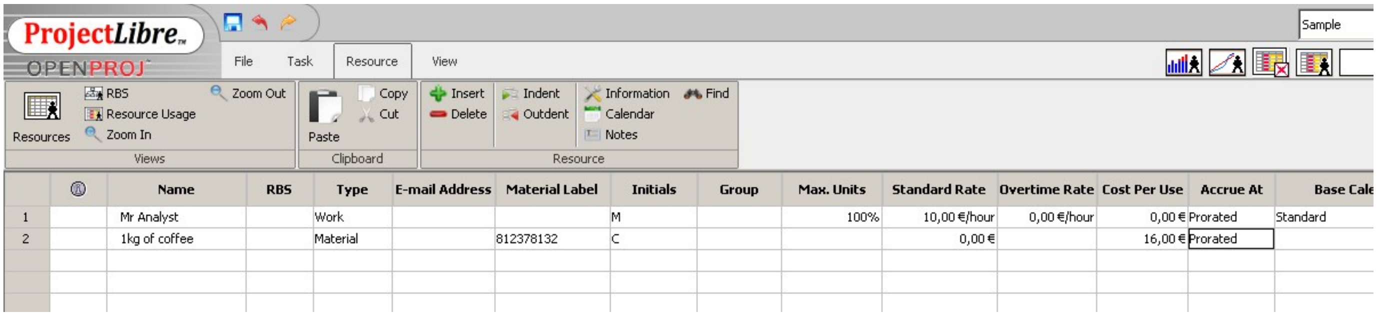


Using resources for a project

★ Click on Resources at the top menu and you should see the following image:

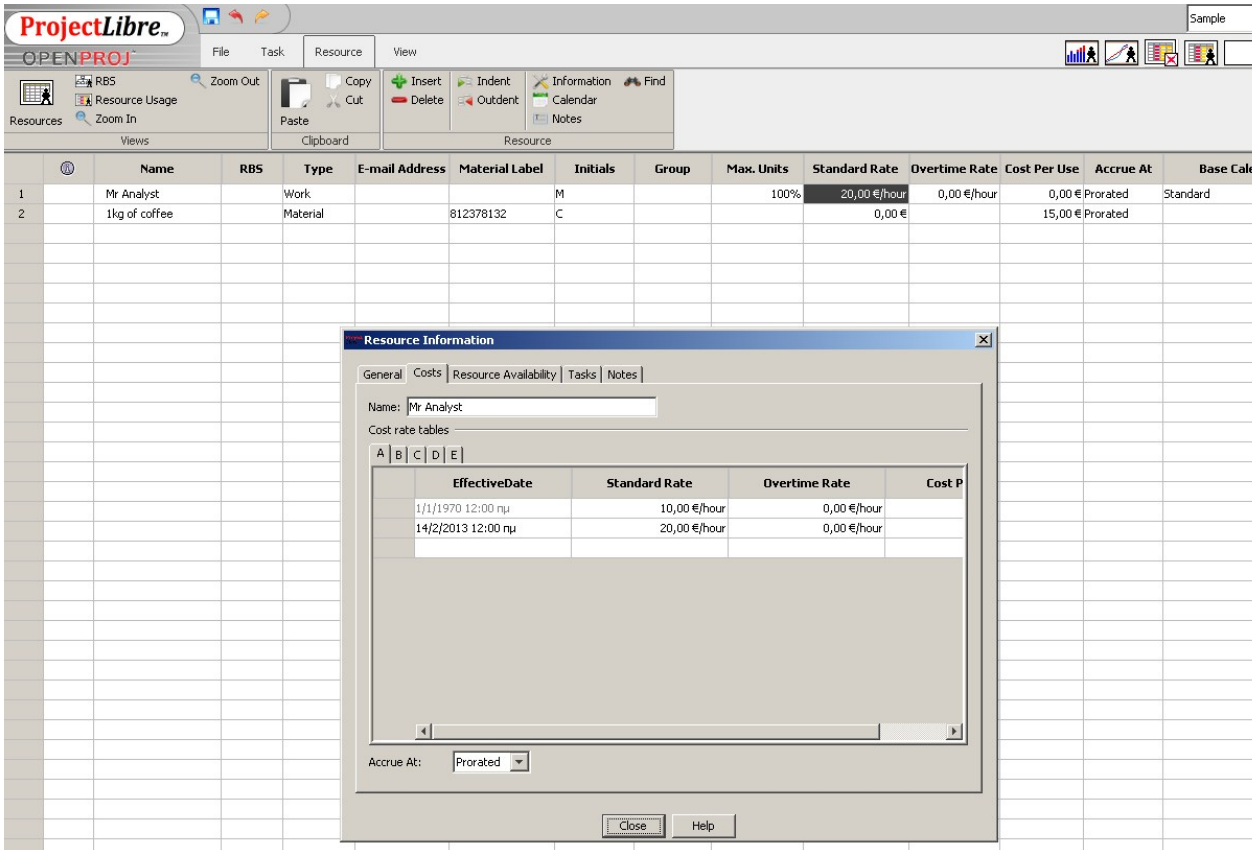


★ Now go on and add the following resources as in the image,
Mr Analyst (type=Work) and
1kg coffee (type=Material).



★ The important elements here are:
Type: It can be either material or work
Standard rate: Rate of use per hour
Overtime rate: If the resource is used at a time different than normal working hours (overtime). Then use this rate
Cost Per Use: This is for contract jobs or for materials. If you hire someone and you pay him a fixed amount to do the task, then you can use this item instead of the standard rate. Also, if you consume some resources then you have to use this item too.
Accrue at: 'Prorated' means that costs are calculated when the task is planed, 'Start' means when the task starts, and 'End' when the task ends.

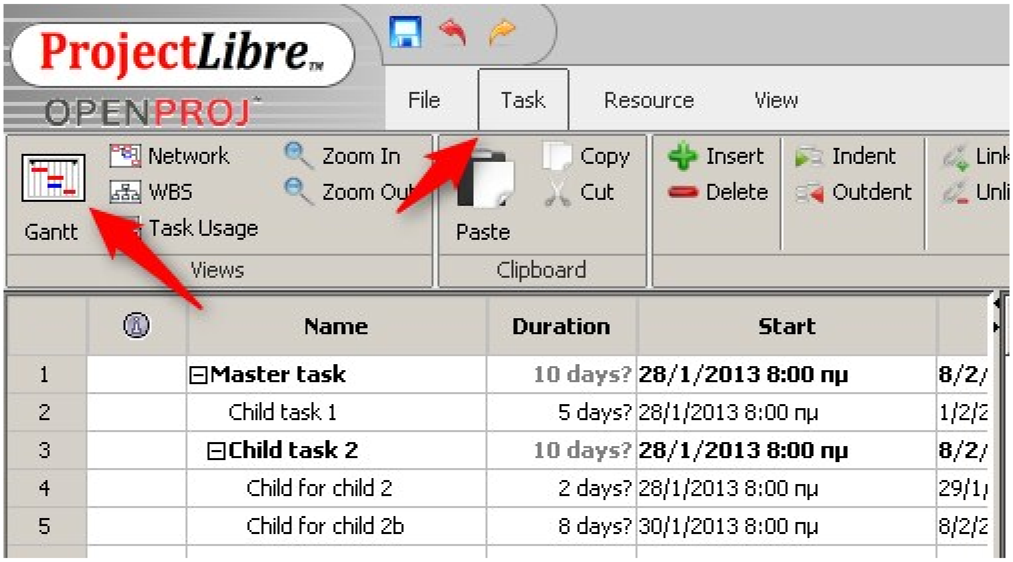
★ If you double-click on any resource row you can click on the 'Costs' tab and define different cost rules for different dates. If a resource charges a different amount for a specific job, you can take advantage of the ABCDE tabs, and define different rates. Also, at the 'Resource Availability' tab, you can define when this resource will be available.



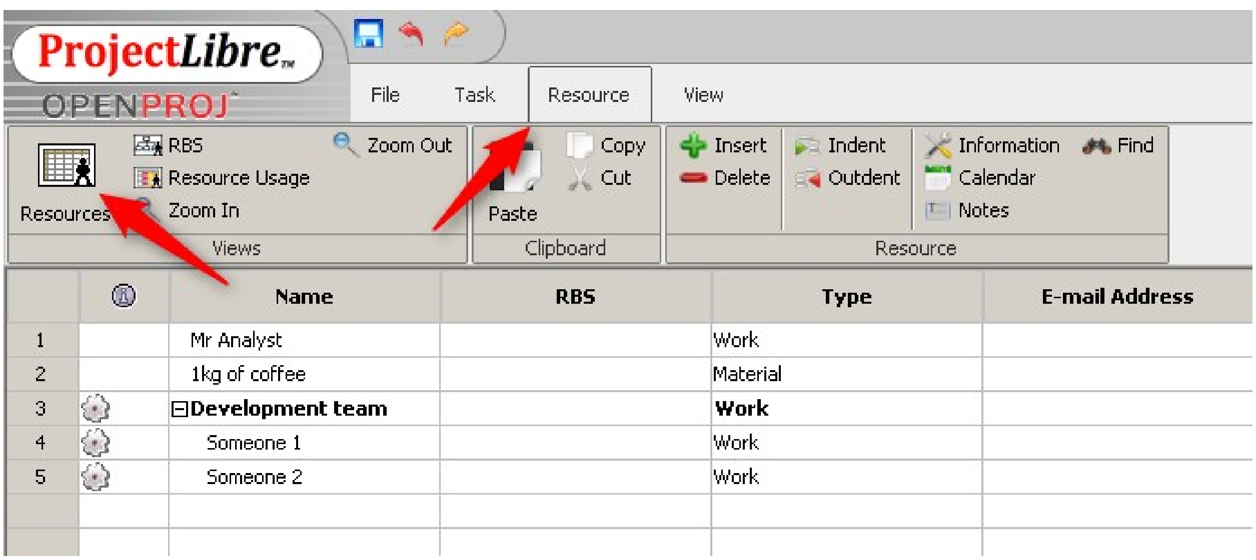
★ As in Task data entry, at resources, you can also have child resources. So, you can add a resource and 'Indent' it in order to show where it belongs. Notice however that the master's rates are not auto-calculated. You have to enter the rates yourself. It is up to you how you are going to handle resource breakdown.

ProjectLibre user interface:

★ To view tasks click on ‘Task’ at the top menu and ‘Gantt’ button on the left



★ To view resources click on ‘Resources’ at the top menu and then the ‘Resources’ button on the left

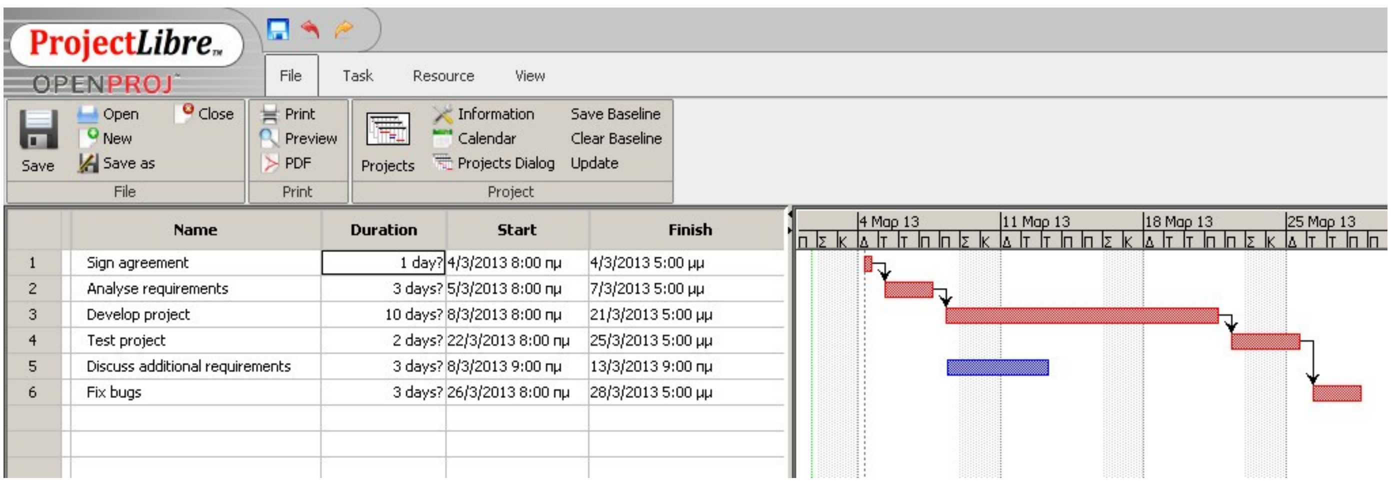


Assigning resources at tasks

★ Consider a very simple scenario about a software project:

- ➔ Mr. Salesman has to visit a client in order to sign the agreement by plane
- ➔ Mr. Analyst has to visit the client in order to discuss requirements by plane
- ➔ Mr. Developer A and Mr. Developer B are going to develop the project
- ➔ Mr. Tester is going to test if the project works ok
- ➔ Finally, Mr Developer A and Mr. Developer B are going to fix the project's bugs

★ Create the tasks as shown in the following image



★ Add some resources. For the purpose of the project we are going to use the following resources:

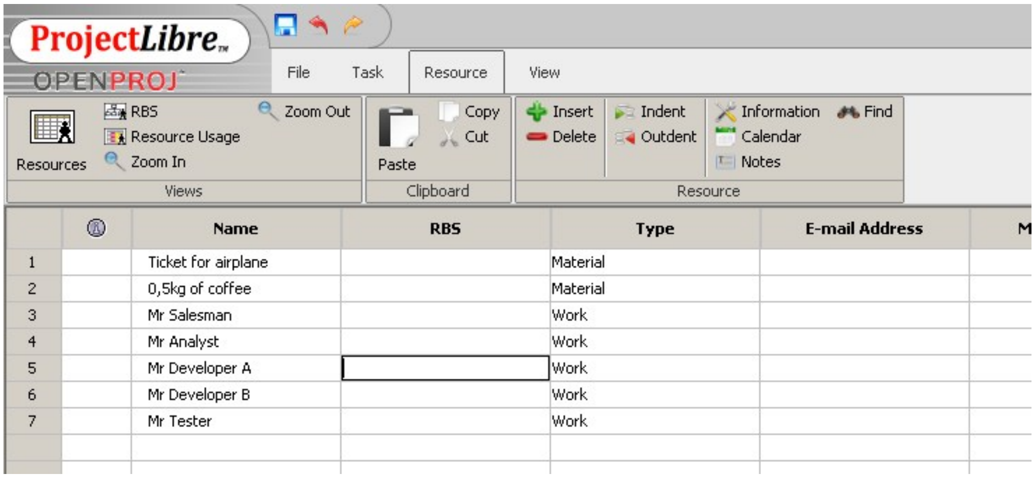
Material resources

- ➔ Tickets for airplane
- ➔ 0,5kg of coffee

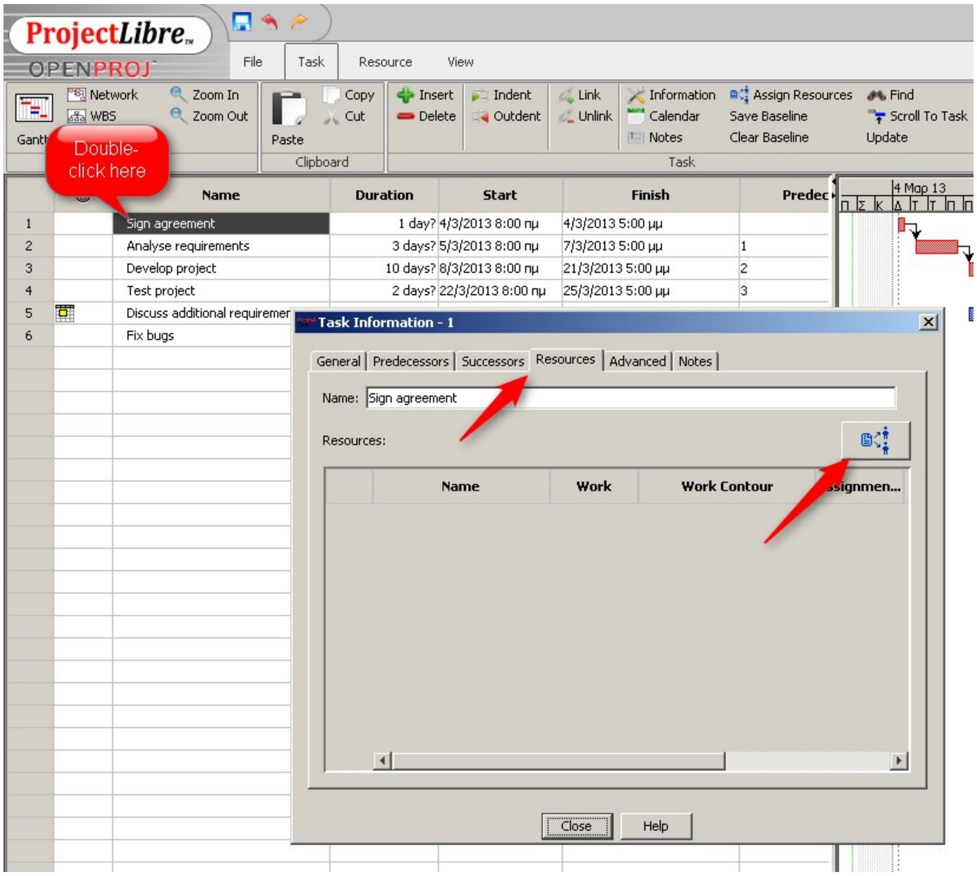
Work (people)

- ➔ Mr. Salesman
- ➔ Mr. Analyst
- ➔ Mr. Developer A
- ➔ Mr. Developer B

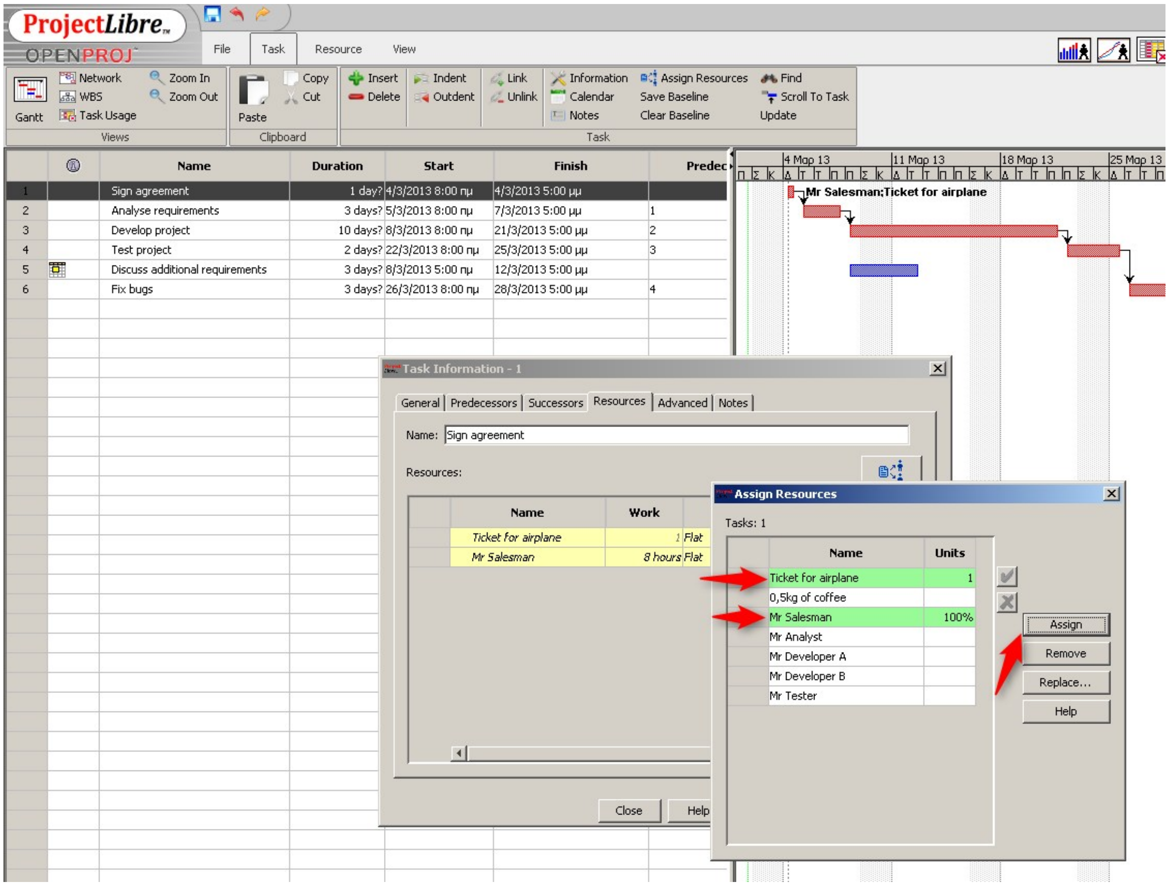
➔ Mr. Tester



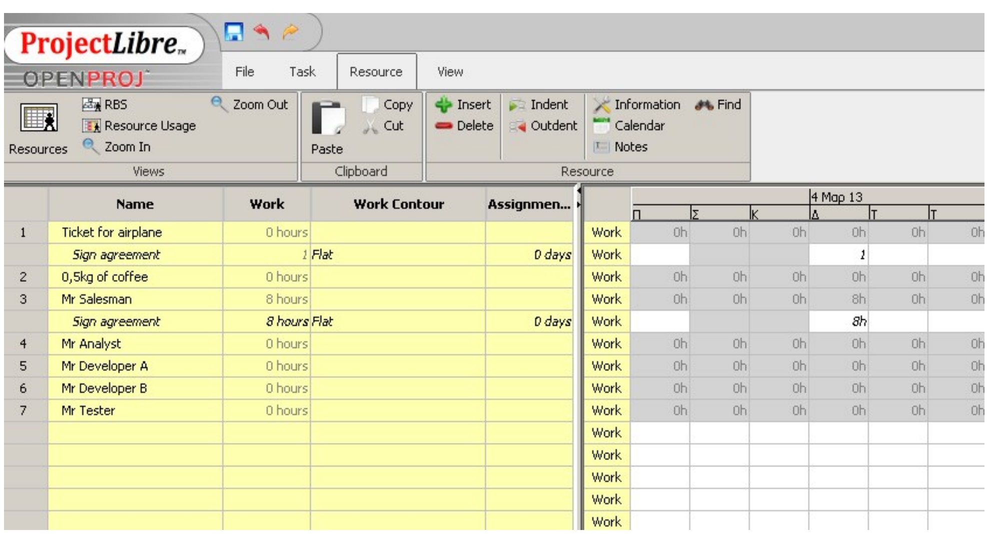
★ Go at the tasks list, double-click on the first task, and then click on the ‘Resources’ tab. Then, click on the blue button with the two people.



★ You can Control+click to select multiple resources for a task. Control+click at ‘Ticket for airplane’ and ‘Mr Salesman’ and then click on ‘Assign’.



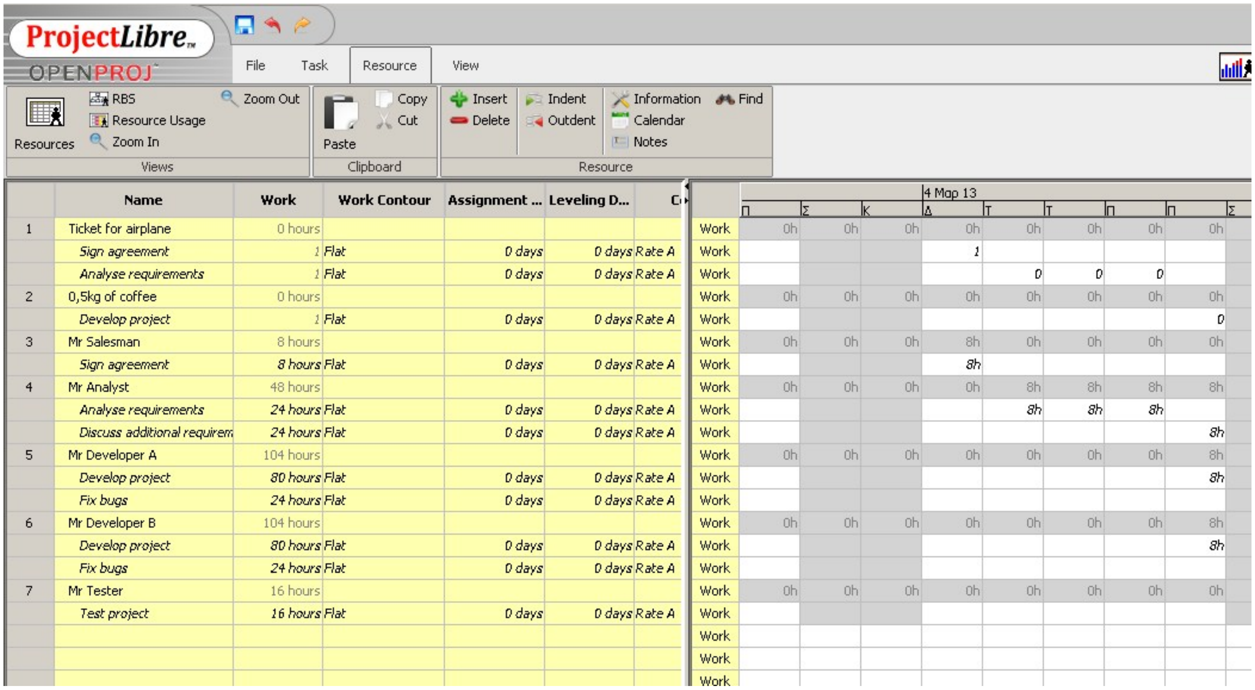
★ Click on ‘Resources’ at the top menu and then ‘Resources usage’ on the left.



★ Now, go on and assign the following resources to the following tasks:

➔ Analyze requirements: Ticket for airplane
➔ Develop project: Mr. Developer A, Mr. Developer B, 0,5Kg coffee
➔ Test project: Mr. Tester
➔ Discuss additional requirements: Mr. Analyst
➔ Fix bugs: Mr. Developer A, Mr. Developer B

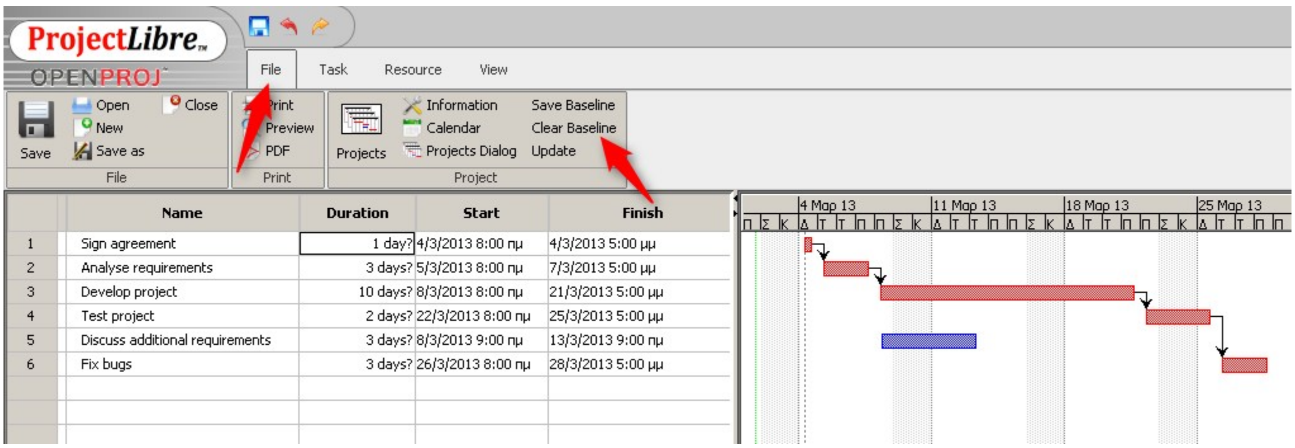
★ Your final Resource usage table should look like this:

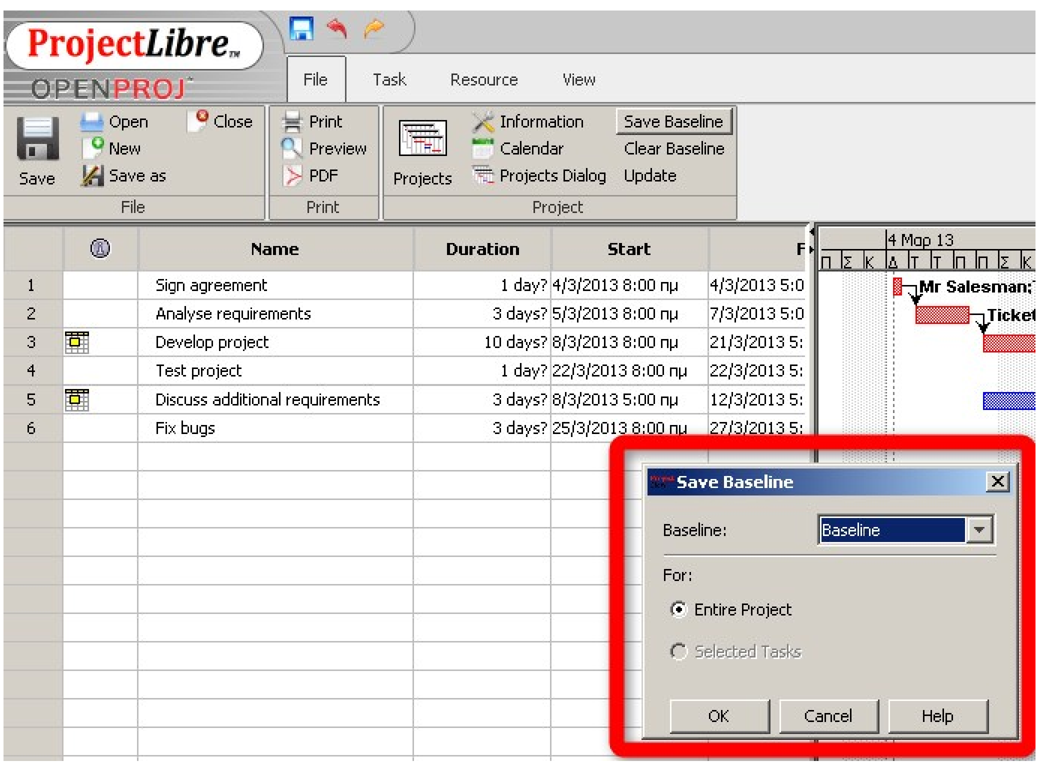


	Name	Work	Work Contour	Assignment ...	Leveling D...	C		П	Σ	K	4 Μαρ 13 Δ	T	T	П	П	Σ
1	Ticket for airplane	0 hours					Work	0h	0h	0h	0h	0h	0h	0h	0h	
	Sign agreement	*1*	*Flat*	*0 days*	*0 days*	*Rate A*	Work				*1*					
	Analyse requirements	*1*	*Flat*	*0 days*	*0 days*	*Rate A*	Work					*0*	*0*	*0*		
2	0,5kg of coffee	0 hours					Work	0h	0h	0h	0h	0h	0h	0h	0h	
	Develop project	*1*	*Flat*	*0 days*	*0 days*	*Rate A*	Work								*0*	
3	Mr Salesman	8 hours					Work	0h	0h	0h	8h	0h	0h	0h	0h	
	Sign agreement	*8 hours*	*Flat*	*0 days*	*0 days*	*Rate A*	Work				*8h*					
4	Mr Analyst	48 hours					Work	0h	0h	0h	0h	8h	8h	8h	8h	
	Analyse requirements	*24 hours*	*Flat*	*0 days*	*0 days*	*Rate A*	Work					*8h*	*8h*	*8h*		
	Discuss additional requirem	*24 hours*	*Flat*	*0 days*	*0 days*	*Rate A*	Work								*8h*	
5	Mr Developer A	104 hours					Work	0h	0h	0h	0h	0h	0h	0h	8h	
	Develop project	*80 hours*	*Flat*	*0 days*	*0 days*	*Rate A*	Work								*8h*	
	Fix bugs	*24 hours*	*Flat*	*0 days*	*0 days*	*Rate A*	Work									
6	Mr Developer B	104 hours					Work	0h	0h	0h	0h	0h	0h	0h	8h	
	Develop project	*80 hours*	*Flat*	*0 days*	*0 days*	*Rate A*	Work								*8h*	
	Fix bugs	*24 hours*	*Flat*	*0 days*	*0 days*	*Rate A*	Work									
7	Mr Tester	16 hours					Work	0h	0h	0h	0h	0h	0h	0h	0h	
	Test project	*16 hours*	*Flat*	*0 days*	*0 days*	*Rate A*	Work									
							Work									
							Work									
							Work									

Project Baseline

- ★ A project baseline is the initial project plan which will be used as a reference in the future. It is used mostly to measure the real performance of the project against the initial schedule.
- ★ When you have finished planning your project and before it begins it is a good time to save this ‘snapshot’ as a baseline.
- ★ Load up your project and click on File at the menu on the top and then on Save Baseline button

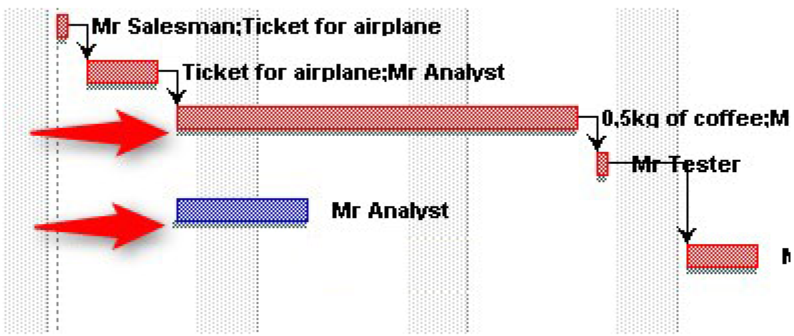




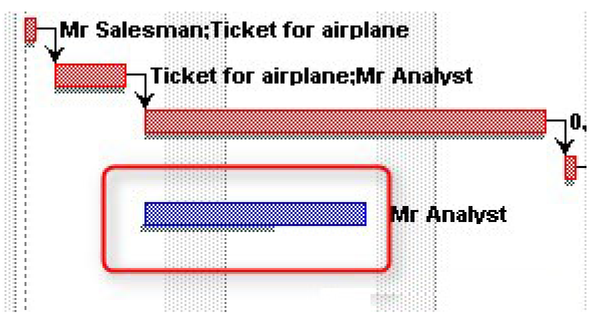
★ In a project, you can have many baselines (up to 10). You can set the baselines at the most important project milestones or whenever there is a big change. Also, you can set the project baseline only for selected tasks of the project (you have to have some tasks selected for the option to be enabled).

★ go on and select 'Baseline'.

★ If you are careful enough, you will notice something like a shadow below each project task at the Gantt diagram. The 'shadow' is your baseline.



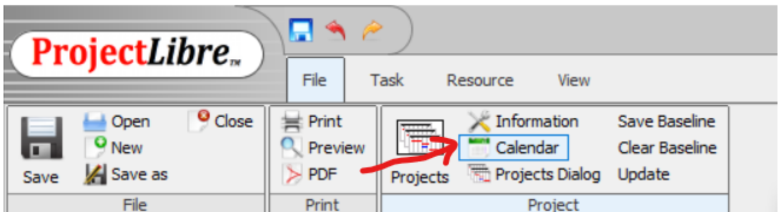
★ Even if you change a task, the shadow remains the same until you 'Save Baseline' again. You can go on and change a task to see what happens.

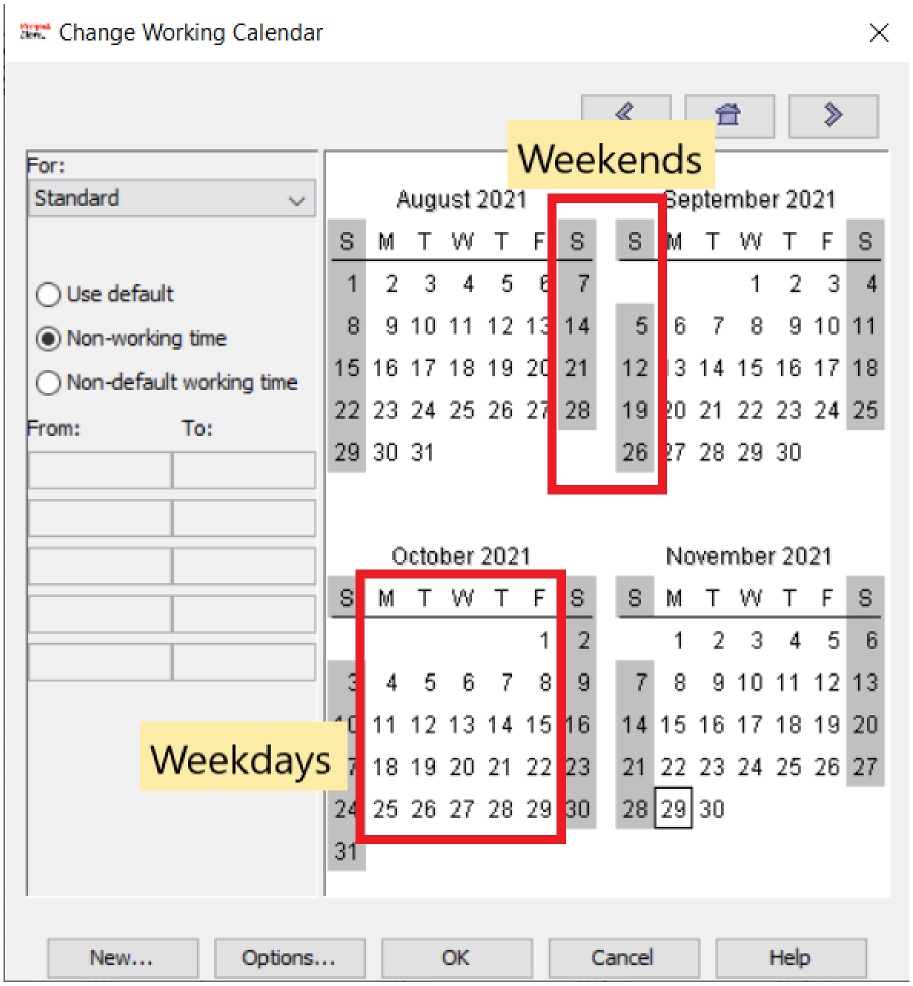


★ If you change a task after saving a baseline. You will notice that the 'shadow' remains intact.

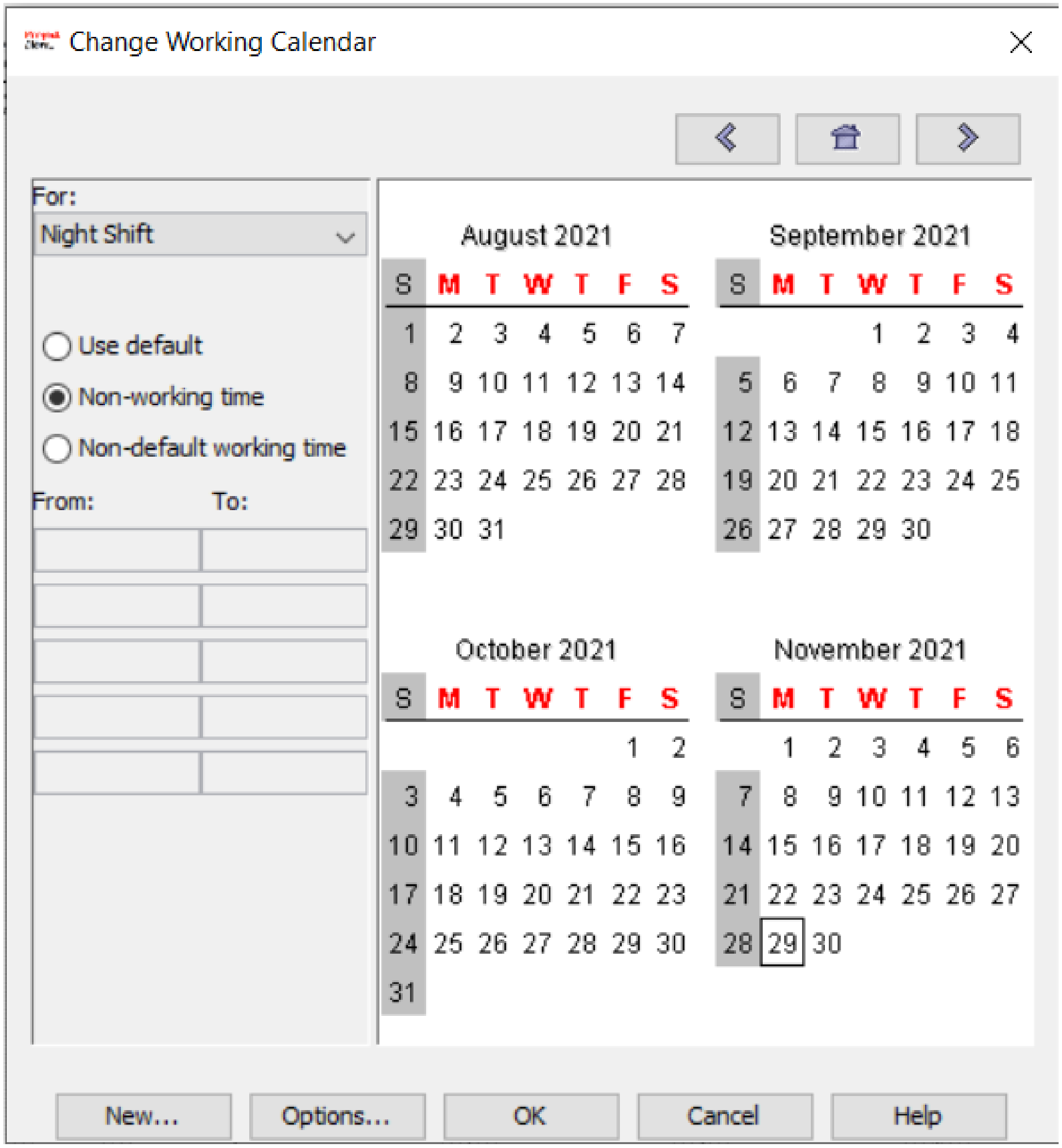
Calendar Options

★ With ProjectLibre you have many calendar options. You can define your own working and non-days, and different calendars for different resources.
★ Click on the ‘Calendar’ button on top. It should be available whether you are at the File, Task and Resource section of ProjectLibre. You will see that the available days have white background while the non-available days have gray background. On the standard calendar the non-available days are the weekends (Saturday and Sunday).




Change Working Calendar
Weekends
Weekdays
For:
Standard
Use default
Non-working time
Non-default working time
From:
To:
August 2021
September 2021
October 2021
November 2021
New...
Options...
OK
Cancel
Help

★ Select For "Night Shift" on top left and see the changes. As you will notice, on the Night Shift calendar the Saturdays are available for work.



★ You can try selecting '24 Hours' too to see what happens. Now, select 'Standard' again and make some changes.

★ You will notice that below Calendar choice are three options:

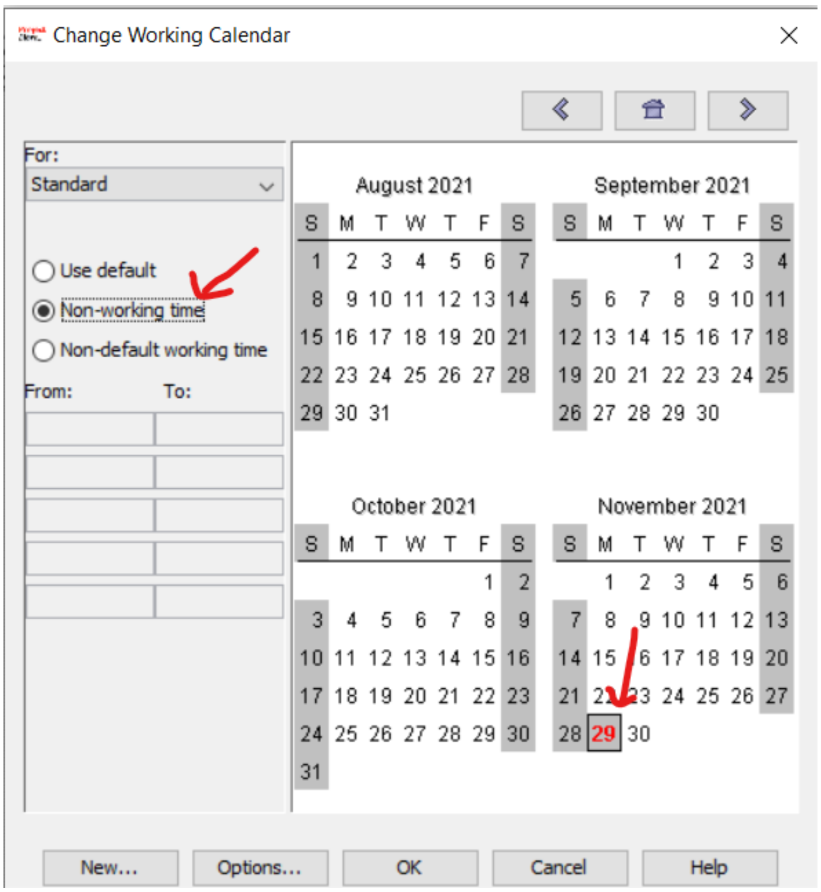
- Use default: Use the calendar's default option for this day

- Non-working time: Ignore the calendar's default option for this day and make this a non-working day
- Non-default working time: Ignore the calendar's default option for this day and make

★ Excluding days at calendar

- One of the most common changes that people want to apply at the calendar is to exclude National Holidays from the calendar. Click on a day (eg 25th of March) and then select 'Non-working time'

★ You will see that the day is now red with a gray background. The red color means that



there is a special rule for this day and the gray background means that this day is not a working day.

★ Including days at Calendar

- By clicking on a weekend day (e.g. March 24th, 2013) and selecting 'Non-default working day' you can set this day as a working day. Also, by selecting this option, you can set specific work hours for that day.