Project Libre – Manual for practical classes LO4 and LO5

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1 Basic functionalities

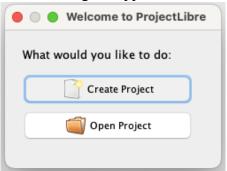
1.1 Launching the application

Start the application by clicking on the icon

ProjectLibr

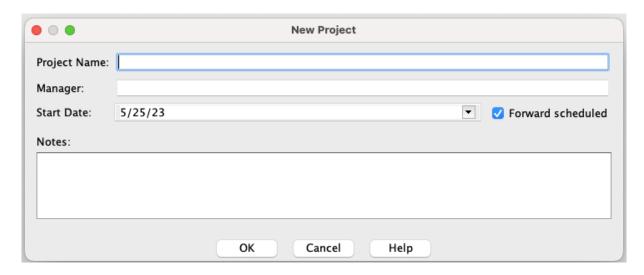
1.2 Create the project

When starting the application, a menu will open:



Click on *Create Project*

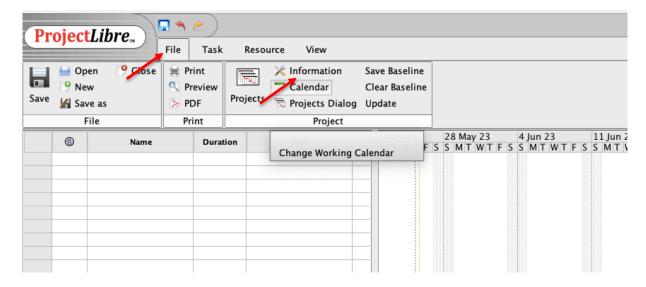
A new window opens:



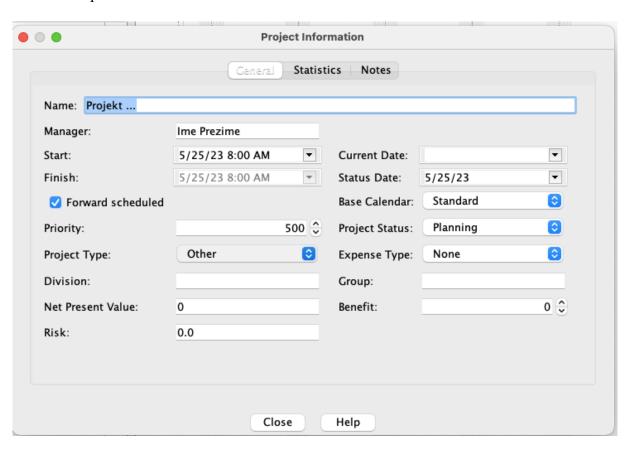
Fill in the fields:

Project Name – Name of the project
Manager – Your NAME and SURNAME
Start Date – enter the start date of the project

If it is necessary to change the start date of the project, the procedure is as follows: In the main interface



Click on tab *File*, *Information* icon A window opens:

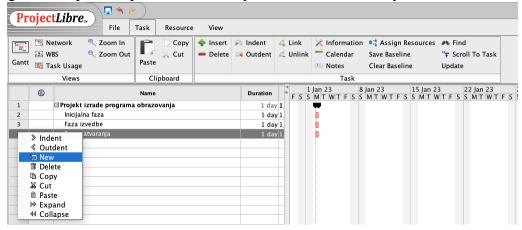


the Start (start date of the project) at any time.

Note: note that it is possible to change *Name* and *Manager* fields here

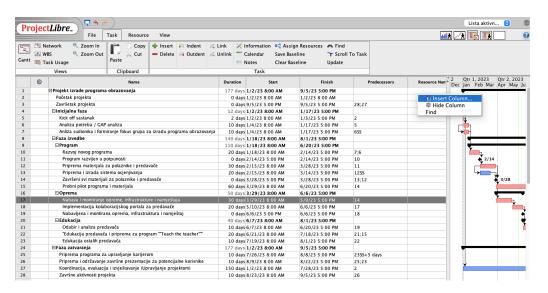
1.3 Adding a new row

A new row is added by highlighting the line below, pressing the right mouse button and selecting **New**. Repeat the procedure as many times as it is necessary to add rows.

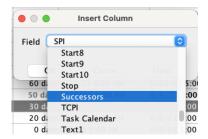


1.4 Adding a new column

A new column is added by selecting the *Insert Column* option when the mouse is positioned on the column name – click on the right mouse button according to the image below



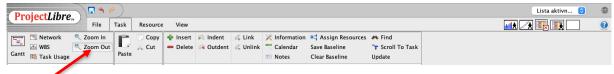
A window with a drop-down menu opens, from which you need to select the field that you want to add as a new column (eg Successors)



NOTE: In case the column needs to be hidden, the *Hide* option is selected.

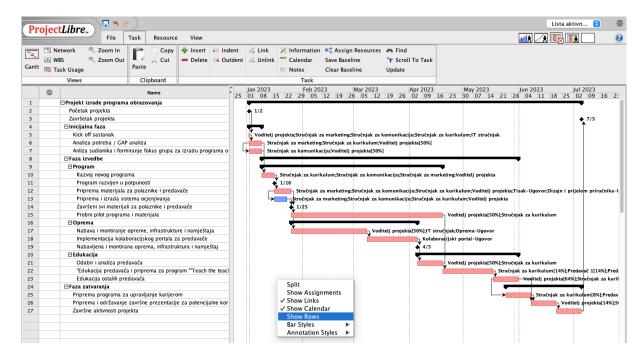
1.5 Zoom option in the Gantt chart

The plan can be increased or decreased in time using the **Zoom In** and **Zoom Out** options in the Task tab



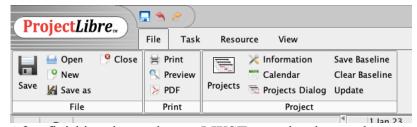
1.6 Display of rows in a ganttogram

For easier navigation in the Gantt chart, it is possible to turn on the display of rows to make it easier to determine which row an individual activity belongs to. The option can be turned on with the right mouse button in the Gantt chart by selecting **Show Rows**.



1.7 Save / Save as option

During the creation of the plan, it is necessary to occasionally record the document on which is being worked on by clicking Save button.

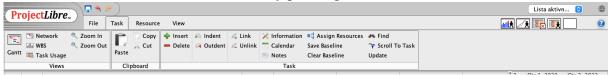


After finishing the work, <u>you MUST</u> save the changes by pressing the *Save button*.

If you need to create a new document or a copy for updating, use **Save as**.

2 Learning Outcome 4 – Timeline

Everything related to time planning is done under you *Task*. The table for entering activities and the Gantt chart view can be obtained by pressing the *Gantt icon*



2.1 WBS, activity, milestone

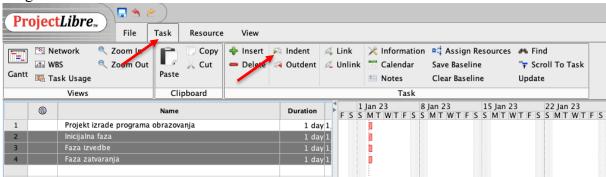
First of all, it is necessary to work out the structure of the WBS and define to which level of the WBS the plan is developed.

A structured project means that the "**Projekt izrade programa obrazovanja**" is the so-called the "zero" level of the WBS

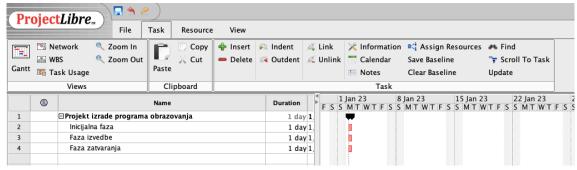
The level of the WBS are the Inicijalna faza, Faza izvedbe and Faza zatvaranja

2.1.1 Creating a WBS structure

In the initial interface of the application, after we have defined the name and start of the project (described in chapter 1.2.), first enter a list of all WBSs according to the following image:



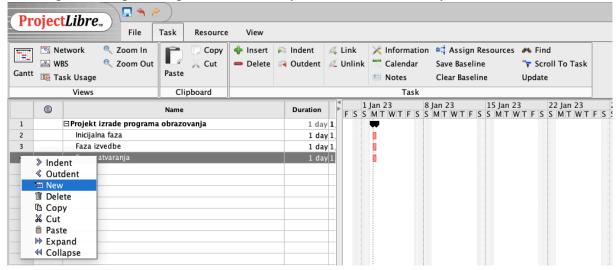
Then lines 2, 3 and 4 are marked and underlined under line 1 (Education program creation project) using the *Indent function* located under the *Task tab*. After that, the 1st level of the WBS is defined and looks like this:



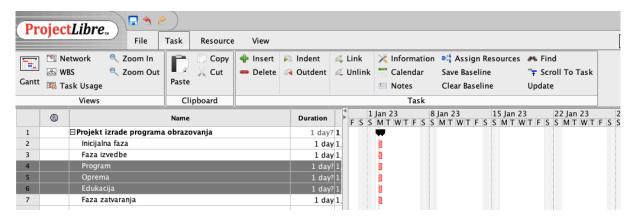
2.1.2 Adding a new WBS node

The performance phase is elaborated into the 2nd level of the WBS which means that the **Program, Oprema and Edukacija** should be added below.

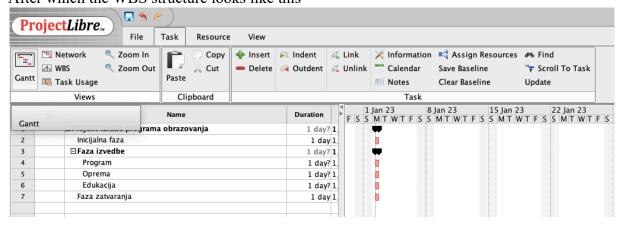
A new line is added by highlighting the line below, pressing the right mouse button and selecting New. Repeat the procedure as many times as it is necessary to add rows.



Repeat the procedure described in the previous chapter and put the new three lines under the performance phase using the *Indent* function.



After which the WBS structure looks like this

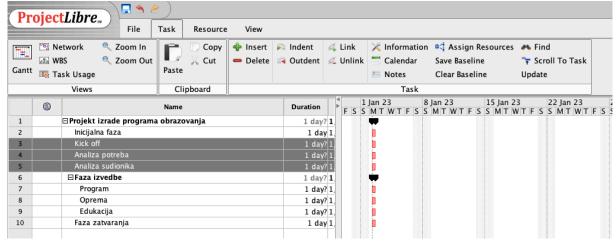


NOTE: Returning a row to the level above is possible with the function *Outdent*

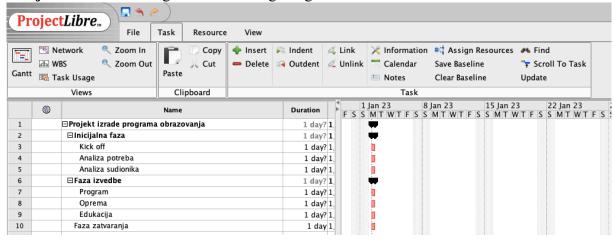
2.1.3 Defining activities

As part of the **Inicijalna faza**, it is necessary to define the **Kick off, Analiza potreba and Analiza sudionika** activities, needs analysis and participant analysis. This means that below the initial phase, it is necessary to add 3 new lines.

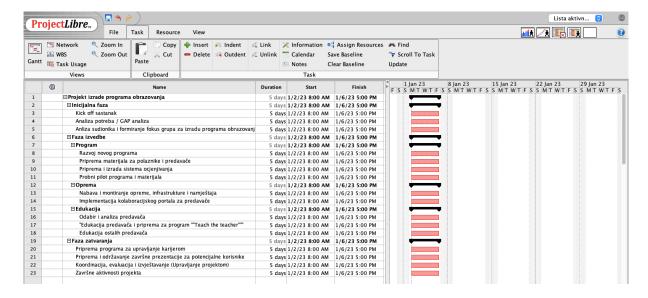
A new line is added by highlighting the line below, pressing the right mouse button and selecting New. Repeat the procedure as many times as it is necessary to add rows.



After defining, using the **Indent** function, it is necessary to position the activities below the **Inicijalna faza** according to the following image:



Repeat the procedure for all activities in each individual node of the WBS. After input, the list of activities structured up to the 2nd level of the WBS looks like this:

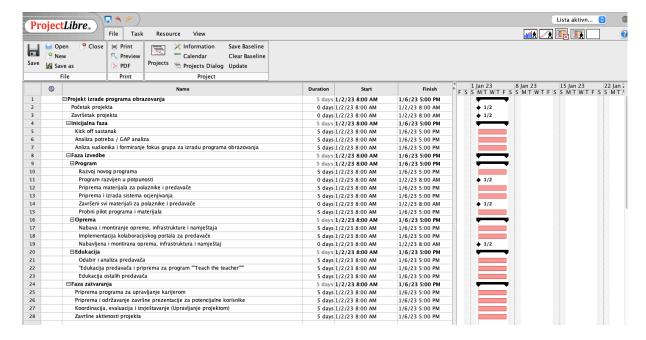


NOTE: in the Gantt chart view (on the right), WBSs are shown in black (summary) lines and activities are shown in colors.

2.1.4 Adding milestones

Milestones are added in the same way as the activities described in the previous chapter. It is defined by entering 0 (zero) in the <u>Duration</u> field.

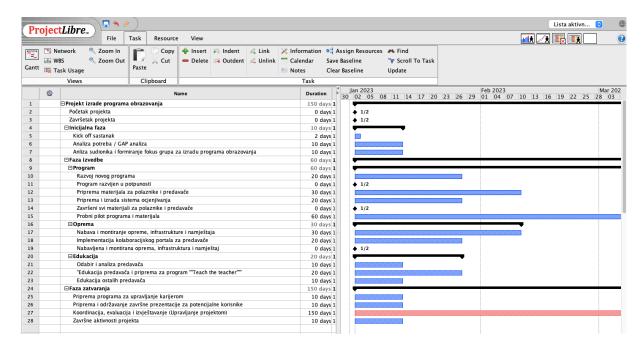
Milestone is shown with a black "diamond" simbol in the Gantt chart view.



Mandatory two milestones are the beginning of the project (Početak projekta) and end of the project (Završetak projekta). They are placed in the root of the project according to the previous picture. Other milestones are defined in places where they are needed for the definition of some "key" events.

2.2 Determination of duration

In the *Duration column*, enter the estimated duration for each activity



2.3 Linking activities

2.3.1 Connection/Link/Relationship types

There are three types of connections/links/relationships:

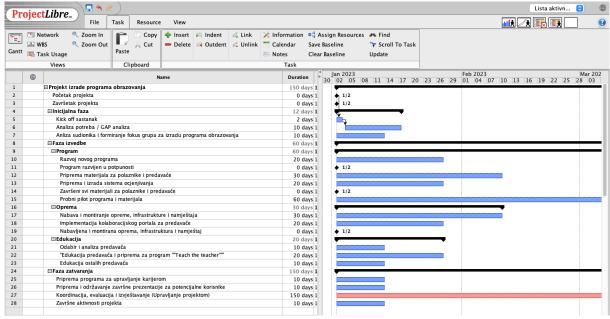
- FS Finish to Start (when the previous activity ends, only then can the next activity start)
- SS Start to Start (when the previous activity starts, only then can the next activity start)
- FF Finish to Finish (when the previous activity is finished, only then can the following activity be finished)

Lag – is used to define the time lag between activities

NOTE: DO NOT change the dates in the *Start* and *Finish columns* !!! (Dates will be automatically calculated by software from durations and associated links)

2.3.2 Linking activities

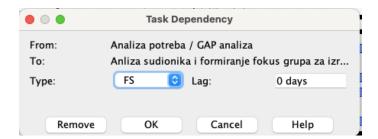
Activities are connected in such a way that in the Gantt chart, two activities (or milestones) are connected in such a way that the first one is marked with the left mouse button, button has to be hold and dragged to the second one with which has to be connected.



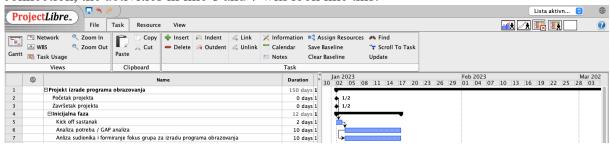
After this, an arrow appears showing the connection, and the activity that is connected is displayed in time behind the previous activity.

NOTE: FIRST STEP – First milestone "Početak projekta" has to be connected to the first activity in the project.

If another type of connection is needed, it is necessary to first connect two activities in the previously described way and then click on the connection itself (arrow in the bar chart). The following window opens:



Under *Type*, change the connection type to SS or FF. In the case of choosing the SS connection, the activities in line 6 and 7 will look like this:

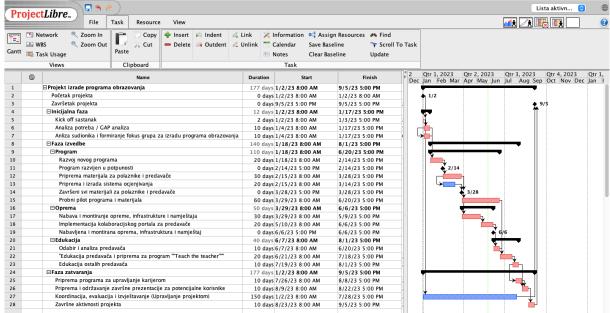


In this way, connect all activities and milestones in the project.

NOTE: all activities and all milestones must be connected in such a way that they all have previous and subsequent activities (except for two milestones, that are representing the beginning and end of the project) !!!

It is possible to check by adding a column **Successors**

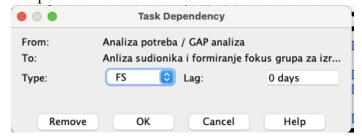
The final layout should look like the image below:



NOTE: Do not connect WBS!!! Only activities and milestones are connected !!!

2.3.3 Lag

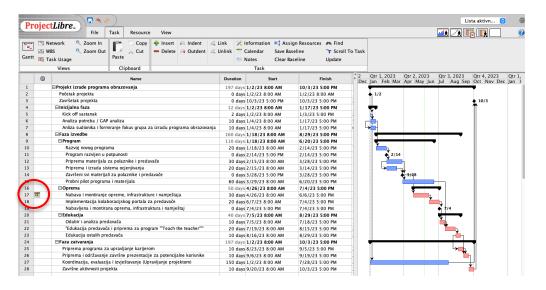
If you need to enter a time gap between two activities, you must first connect the two activities in the previously described way and then click on the connection itself (arrow in the bar graph). The following window opens:



Under *Lag*, enter the lag in data (can be positive or negative)

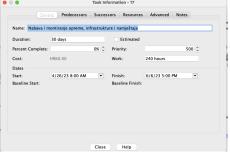
2.3.4 Constraint (calendar in info column)

When connecting two activities if this icon appears in the info column, it means that the so-called *Constraint* is set up.

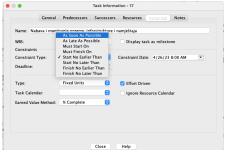


NOTE: Constraint is not acceptable for creating a correct time plan and it is necessary to do the following:

By double-clicking on the line in which icon appeared, a window opens



Under you Advanced window opens



Under Constraint Type, you need to select the As Soon As Possible option and press Close.

NOTE: DO NOT change the dates in the *Start* and *Finish columns* !!! (Dates will be automatically calculated by software from durations and associated links)

2.4 Timeline adjustment

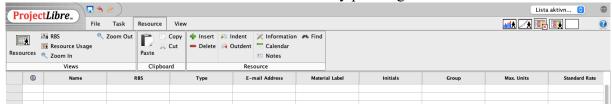
If the connected activities in project plan results in a higher or lower total duration than the determinated, it should be shortened or increased in such a way that:

- a) Reduce or increase duration on critical activities
- b) If possible, with negative **Lag**, overlap certain critical activities to run activities in parallel (using SS or FF links/connection types)

3 Learning Outcome 4 – Financial plan

3.1 Defining resources

Everything related to defining resources is done under the tab *Resource*. The table for entering activities and the Gantt chart view can be obtained by pressing the *Resources icon*



Name columns are filled in with Resource name, the resource type is selected under *Type* and the unit price is determined under *Standard Rate*

Two types of resources are possible: Work and Material

Resource type *Work* is used where hourly price is defined.

The resource type *Material* is used for all forms of resources by some unit of measure (pc, kg, m...)

NOTE: in the case of the need to define a lump sum (Contract), a resource of type *Material* with unit of measure 1 is used

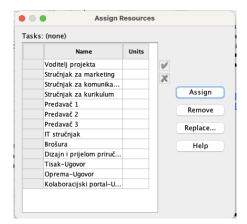
NOTE: the unit price is entered under Standard Rate!!!

3.2 Assigning resources

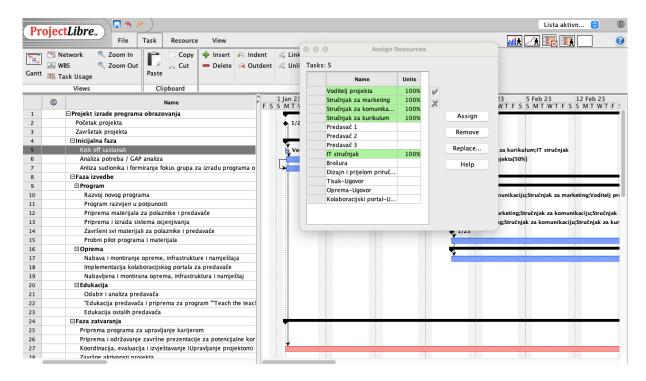
It is necessary to return to the time planning view (tab *Task*, *Gantt* icon)

NOTE: First, it is necessary to fix the duration by adding a new *Type column* instead of *Fixed Units* determine *Fixed Duration* throughout the plan.

After the duration is fixed, the defined resources are added to the activities of the time plan in such a way that under the tab *Task* clicks on the *Assign Resources* icon. A window opens:



For each of the activities, it is necessary to add the resources that are planned to be performed on that activity.



To change the activity, *Assign Resources* can be open all the time, it is enough just to mark the new activity on the left.

NOTE: resources are <u>NOT added</u> to WBS and milestones!!! They are only added to activities!!!

3.3 Budget

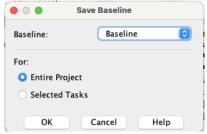
Add a *Cost* column and track total costs at the project level. If the total budget is lower or higher than the determinated, it needs to be adjusted.

4 Learning Outcome 5 – Update Project Plan

4.1 Baseline

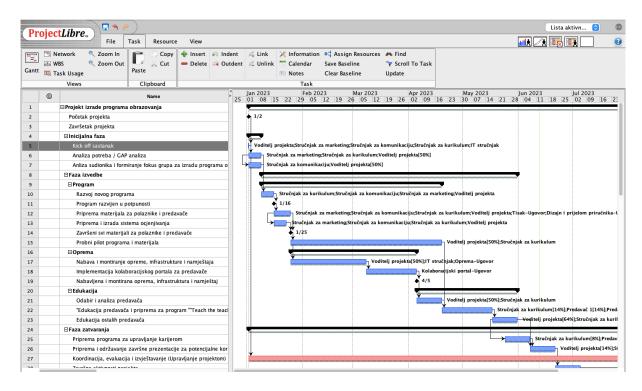
After creating the project plan, it is necessary to record the Baseline in such a way that under the tab *Task* clicks on the *Save Baseline* icon.

A window opens:



On which you need to press **OK**.

If the Baseline is recorded in the Gantt chart, a gray line will appear under each activity.

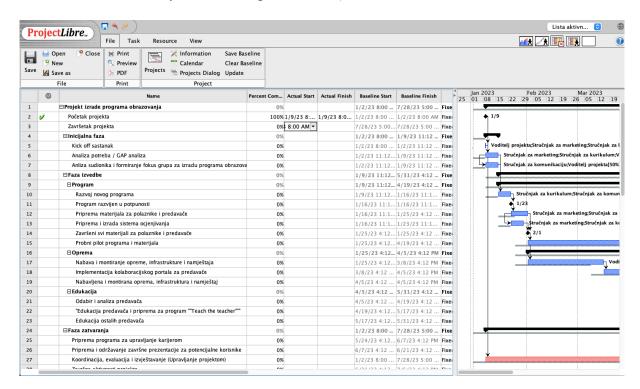


4.2 Updating the project activities

Before starting the update, it is necessary to insert 5 new columns:

- 1. Percent Complete
- 2. Baseline Start
- 3. Baselines Finish
- 4. Actual Start
- 5. Actual Finish

The update should starts with the update of the first milestone by entering 100% in the column *Percent Complete* and then specify the date when it started (for example, for a delay of one week, select a date 7 days behind the planned date) in the *Actual Start* column.



Pay attention to the fact that in this case the entire project is shifted by 7 days to the right in relation to the Baseline.

After that, all the remaining activities that have started (or finished) are updated in such a way that the *Percent Complete* and *Actual Start* (and *Actual Finish*) columns are filled with percentage of completion or start (and end) date.

4.3 Outcome 5 – Replaning project activities to the original deadline

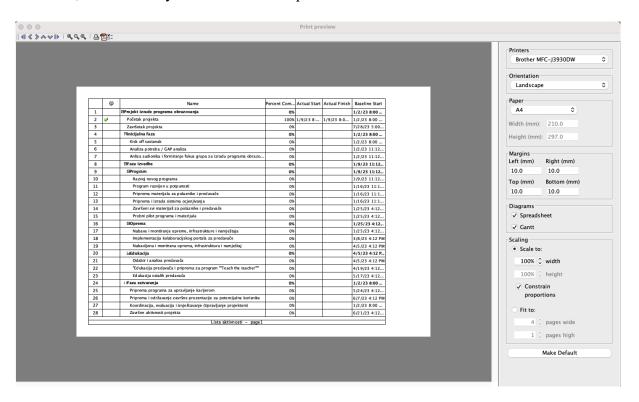
If the project plan is not needs to be replanned in such a way that the project is returned to the original deadline, it is necessary to use the planning methods described in chapter 2.4. Timeline adjustment

After matching, the last activity or milestone in the project must have the same date in the columns *Baseline Finish* and *Finish*.

5 Learning Outcome 5 – Reporting

To create a report that shows the columns and the Gantt chart, it is necessary to edit the required columns using option *Insert Column* or *Hide Column*

After that, it is necessary under the tab File press the Preview icon



On the right side, edit the report itself using the available options Paper, Margins, Scale until the report is edited with all required fields and charts.

After that, you need to press the icon for creating a PDF (to the right of the print icon) and save the document in pdf.