Projectile
Version 5.9

The integrated total solution for service providers: projects, processes, knowledge.

Help, Part 4: Project Planning

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4.1 Project Definition and Project Planning

The **project definition** is the first project phase and forms the basis of a project. In this phase the binding specifications for the subsequent project planning are made. A careful project definition is a decisive prerequisite for the successful implementation of a project.

Project planning is one of the main tasks of project management. Project planning is usually the second of the four project phases, i.e. it follows the project definition and prepares the actual project execution as well as possible.

Project planning begins with **project structure planning**. The resulting structures form the basis for goal-oriented development; all further planning steps are based on them. The task packages are derived from the work breakdown structure, for which an estimate of the effort required is then made.

With the results of the effort estimation, a schedule is now created for the individual work packages or subtasks, in which the work packages are set up in the order in which they are to be worked out. After this list has been drawn up, a schedule is drawn up.

The subsequent **resource planning** should ensure an optimal use of the available personnel and the available operating and material resources. The comparison of resources with other projects should be included in these considerations in the form of multi-project planning.

Finally, cost planning is carried out on the basis of the planning data.

Projectile offers various options for creating projects in order to map the project definition and planning in the system: Creation from a sales funnel (for external projects) or from a project idea/project proposal (for internal and external projects), the manual creation of a project, the project templates, the project construction kit and the import from MS Project

4.2 Project Creation from Sales Tunnel

Sales funnels in Projectile (see also section 2.6) represent project opportunities and can be the basis for project investment. A project can be created from the sales funnel using the action "create project".

Thereby the key data of the sales funnel (especially the information of the tab "project creation") are transferred to the mask "project".

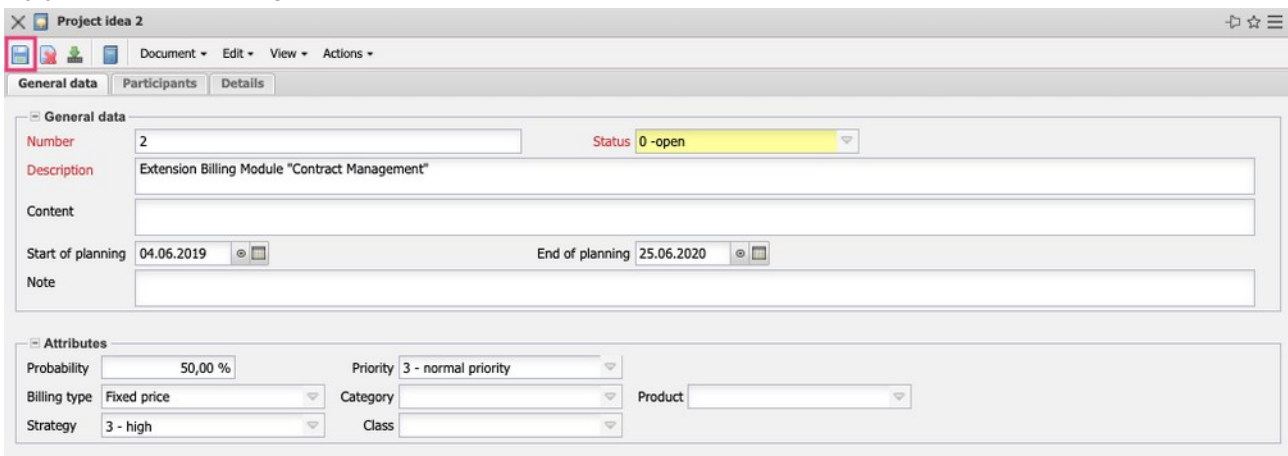Continue with the manual project creation in section 4.4.

4.3 Project Creation from Project Proposal

Project proposals (project ideas) are often used in project management as a preliminary stage of a project before a project is initiated. In Projectile, project proposals can be created and managed in the project management menu:

In the following example, the extension of the billing module is defined as a project proposal. The subsequent internal project is to be carried out from 06.01.2020 to 28.02.2020. The status of the request is "open". Further information on the request should support the decision making process (various attributes, planned effort, planned costs, planned turnover, added value, risks/opportunities, ...).

After saving the application, the external and internal participants (unit, cost centre, project manager, project team, steering committee and project partners) can be entered in the "Participants" tab...

... and in the tab "Details" further characteristics (planned expenditure, plan‑ ned costs, planned turnover, project goal, alternatives, ...).
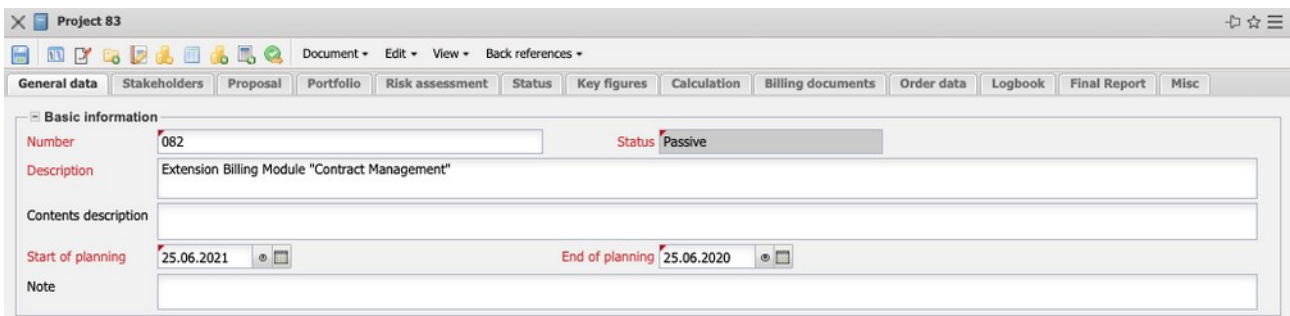
A project can be created from the (possibly approved) project proposal using the action "Create Project".

The key figures of the project application are transferred to the "project" mask.

Continue with the manual project creation in section 4.4.

4.4 Manual Project Creation and Definition

In Projectile, projects can be created manually in the "Project Management" menu ("+-Button"):
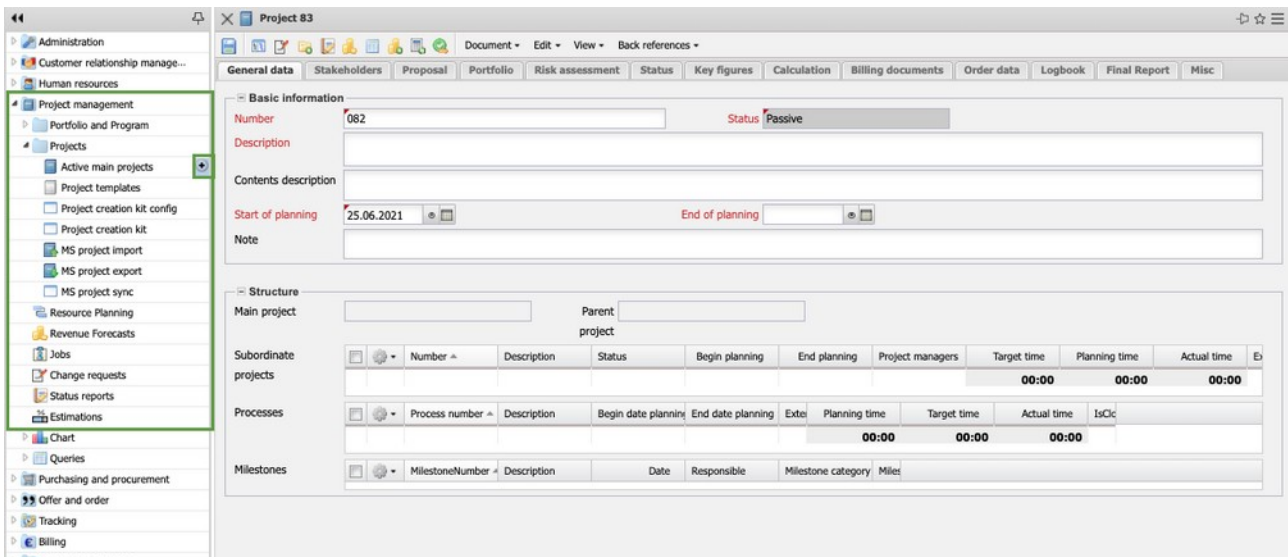
4.5 Project Definition

In the following example the project "082 - Development of a new user interface" is created and saved. Afterwards, the required data for the project definition is entered.
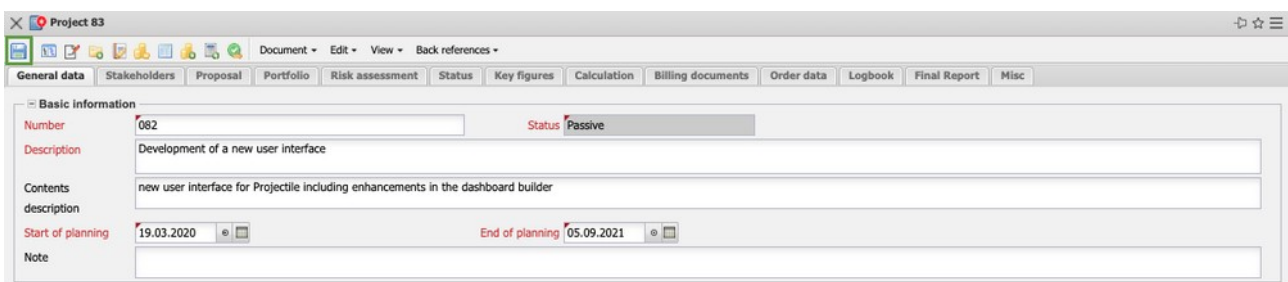
Click on the tab "Stakeholders" in the frame "ext. Involved" tab in the "Ext. participants" frame, a distinction is first made as to whether the project is internal or external. In the case of external projects, the client (field "Company") and the contact persons for the project are then entered. In the frame "internal participants" the unit can be assigned (organizational unit, the head of the unit then also has access to the project), the project manager(s), the project team and other internal participants). The project team is also automatically assigned on the basis of the resource planning (see Section 4.8).

In the tab "Proposal" you can (if the project application is not used) enter data for a project application (background, goal, requirements, restrictions, business case, ...)

In the "Portfolio" tab, various attributes for the project (probability, priority, order type, project type, ...) can be stored and the project can be assigned to programs or portfolios.

In some versions the classification of projects and tailoring is also possible.

In the tab "Risk Assessment" a project-related risk assessment can be made.
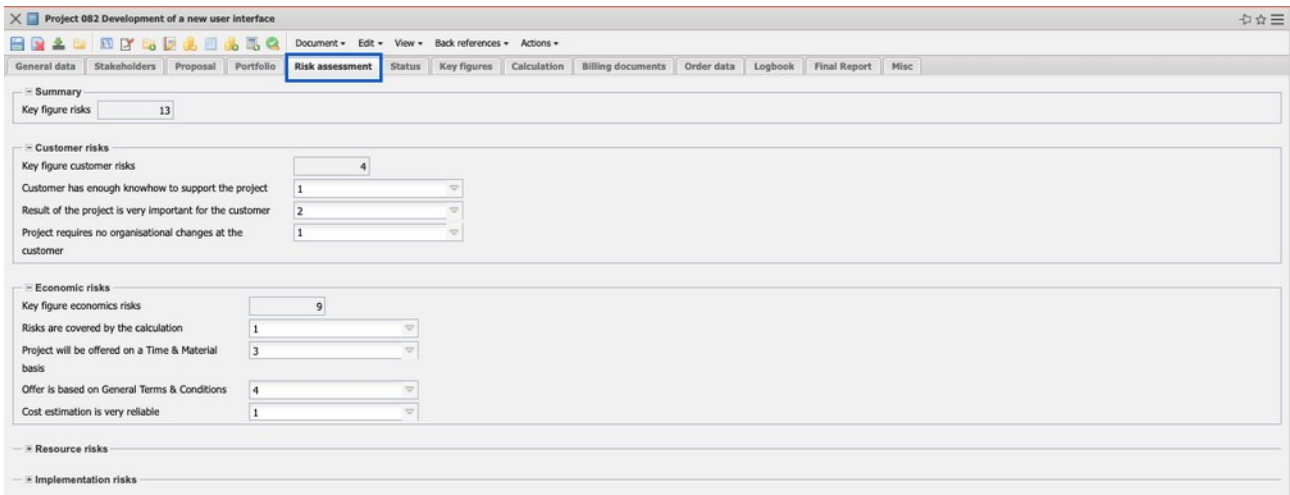
After the project definition, the next step is project structuring.

4.6 Project Structuring

The work breakdown structure (WBS) is the result of dividing the project into elements that can be planned and controlled. A project is divided into subprojects and work packages as part of the structuring process. Subprojects are elements that must be subdivided further, work packages are elements that are located at the lowest level in the WBS and are not subdivided further there.

The task packages are derived from the work breakdown structure, for which an estimate of the effort required is then made. You can create the WBS using the "Project Planning" function:
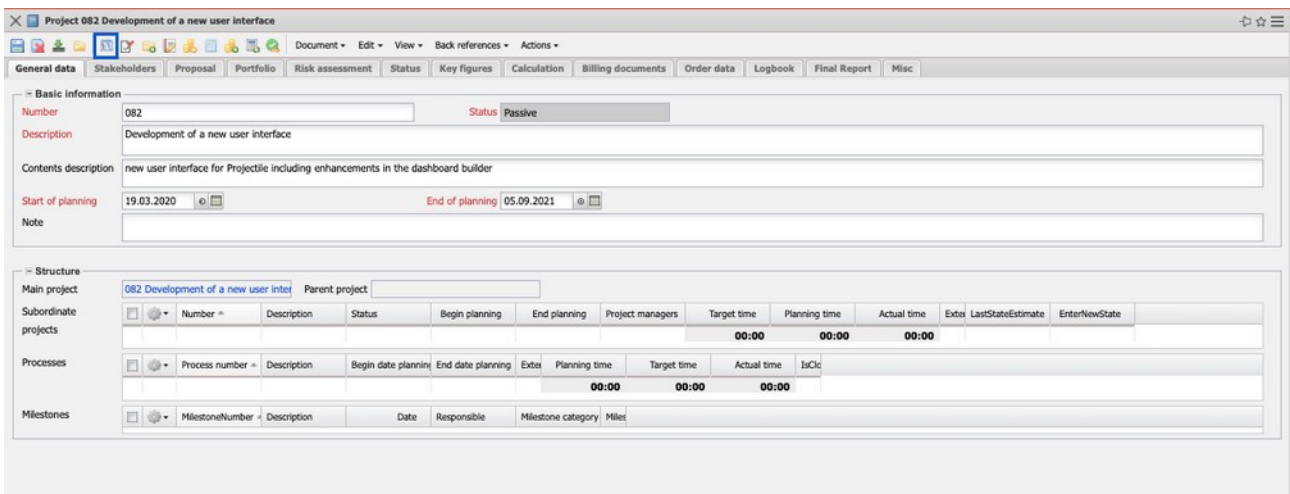

In addition to defining the work breakdown structure, this dialog box also allows you to plan the process and schedule as well as resource planning. It con-

sists of forward and backward calculations, buttons for adding WBS elements, columns for defining WBS elements, and the bar chart:
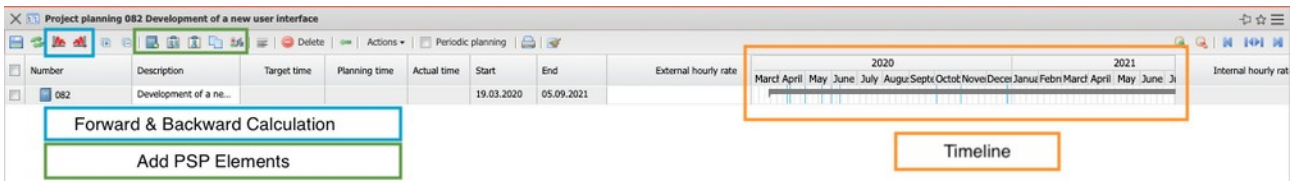

In the following example, project "049" is first divided into two sub-projects: Planning Phase and Implementation Phase). To do this, first select the project and then click twice on the project icon. Projectile then creates these two sub-projects ...
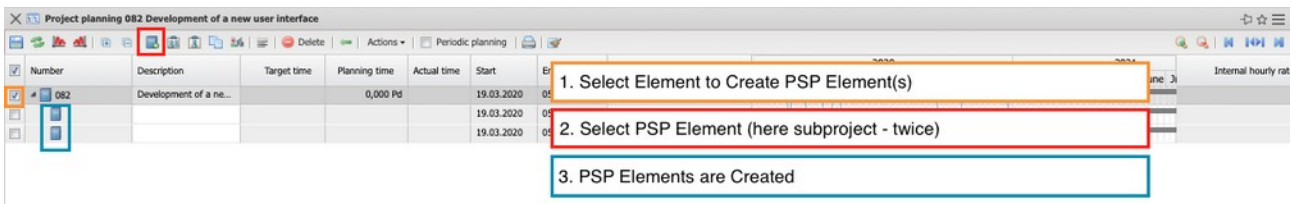
... and the user then fills in the names of the sub-projects and saves the project plan.
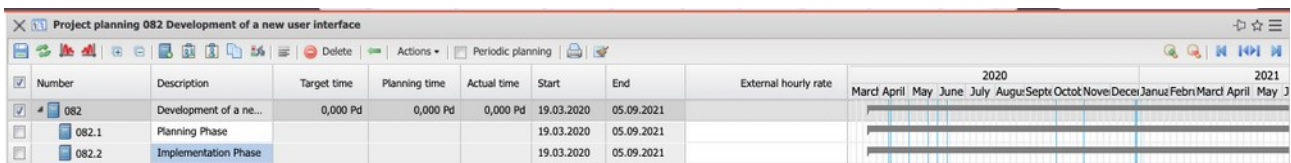
In the next step, two tasks (activities) are added for each subproject. First select the subprojects and then click twice on the task symbol. Projectile then creates the four tasks for the two subprojects ...
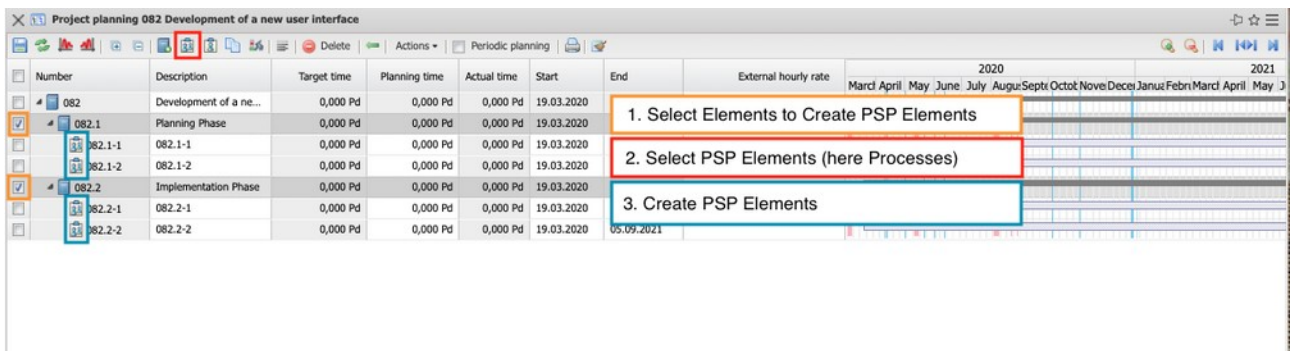
... and the user then fills in the names of the tasks and saves the project plan.

In the example, three more tasks are then created for the second subproject ...

... and then the processes are concretized. For each task a planned effort in hours or (as in the example) in person days should be stored. The planned effort is the basis for scheduling, resource management, project controlling and, if necessary, for billing. In addition, the activities (for price and cost determination and as a basis for resource planning) should also be assigned.


Note: If an activity is assigned for which an abstract employee is stored, the corresponding abstract employee is automatically assigned to the task (if configured accordingly) (see also Section 3.7).

4.7 Process and Schedule Planning

On the basis of the work breakdown structure, you can then create a flow chart and schedule for the project. The first step is to create milestones and then define relationships. In the following example, a milestone is created for each of the two subprojects. First select the subprojects and then click once on the milestone symbol. Projectile then creates the two milestones ...

... and the user then fills in the names of the milestones and saves the project plan.
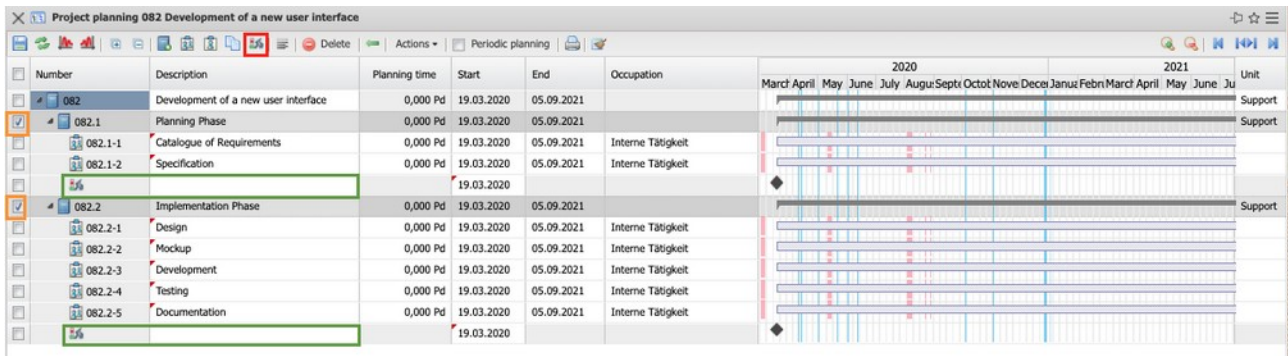
Afterwards a "End-Start" relationship is defined between the work packages "Requirements Catalogue" and "Specification". By clicking at the end of the bar of the "Requirements Catalogue" work package and another click at the beginning of the "Specification" work package, an arrangement relationship is created.
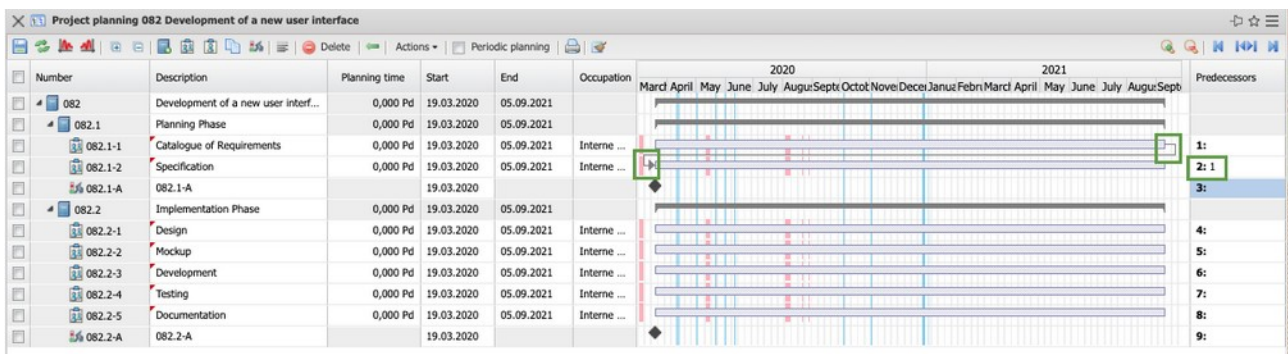
This relationship is then also transferred in the column "Predecessor". The "Specification" (#2) has "Requirements catalog" (#1) as its predecessor. In the "Predecessor" column, you can also enter the ID of the predecessor directly and the system then generates the relationship.

If only the ID is entered, this defines an "end-start" relationship, otherwise the notation would be "ID AA" for "start-start" relationships. Multiple predecessors (as in the second milestone) are separated by spaces, commas or semicolons.

Scheduling can be done manually (by moving the bars) or automatically based on the network technique. In the example, forward calculation is applied and the schedule is calculated:
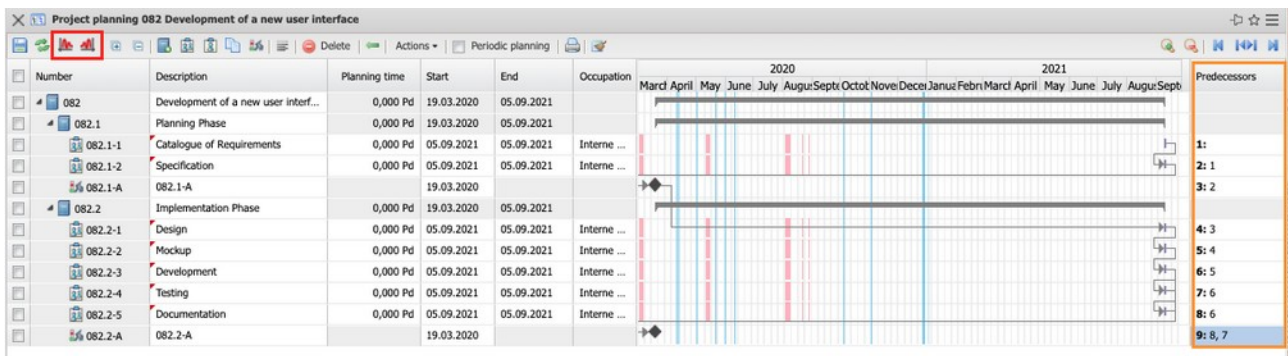
Within the network planning technique, forward and backward calculations are required to determine the total project duration, earliest and latest dates and buffer times. Forward calculation determines the end time starting from the start of the project. All activities and events are entered one after the other in the appropriate calendar from the start of the process, with their respective durations, time intervals, floats, and so on, according to the arrangement rela-tionships.

Backward calculation is the method of planning a project from its scheduled end. In scheduling, a deadline is specified by which the project result must be completed. Scheduling is then carried out from the end date backwards to the latest possible start date of the project.
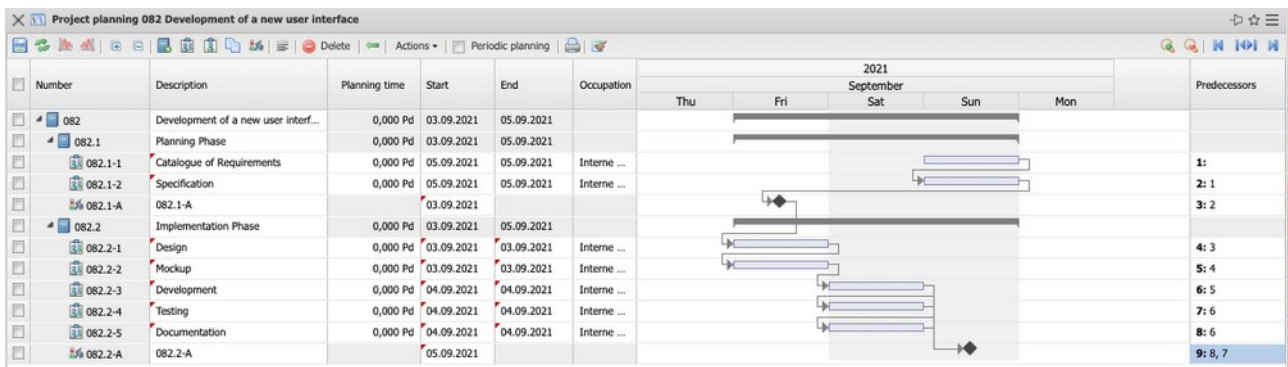

Using the "fixed" column, you can exclude any WBS elements from the forward or backward calculation (for example, if milestones are not to be calculated). In the example, the whole sub-project "planning phase" is fixed and the rest of the project is rescheduled:
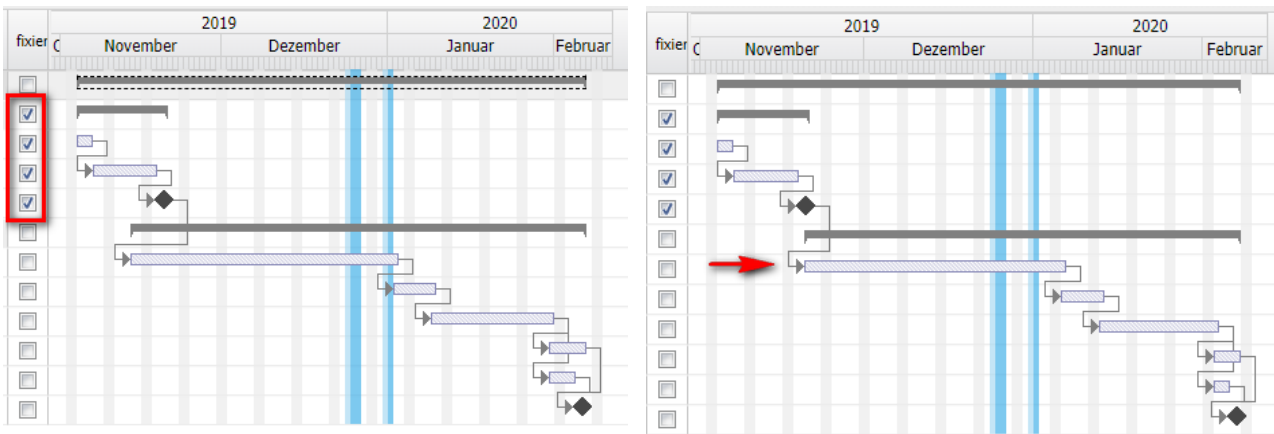
You can also define buffers between WBS elements.
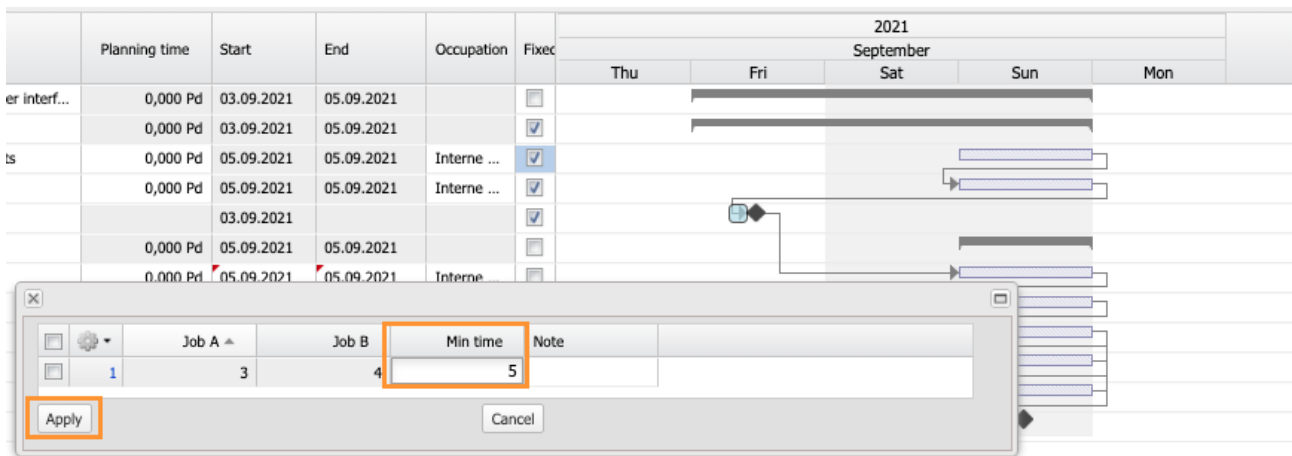
In the example, a five-day buffer is defined between the "Design Acceptance" (milestone) and the first work package of the "Design" implementation phase (to wait for the customer's acceptance, for example). After a new forward calculation, the subsequent work packages are shifted accordingly:
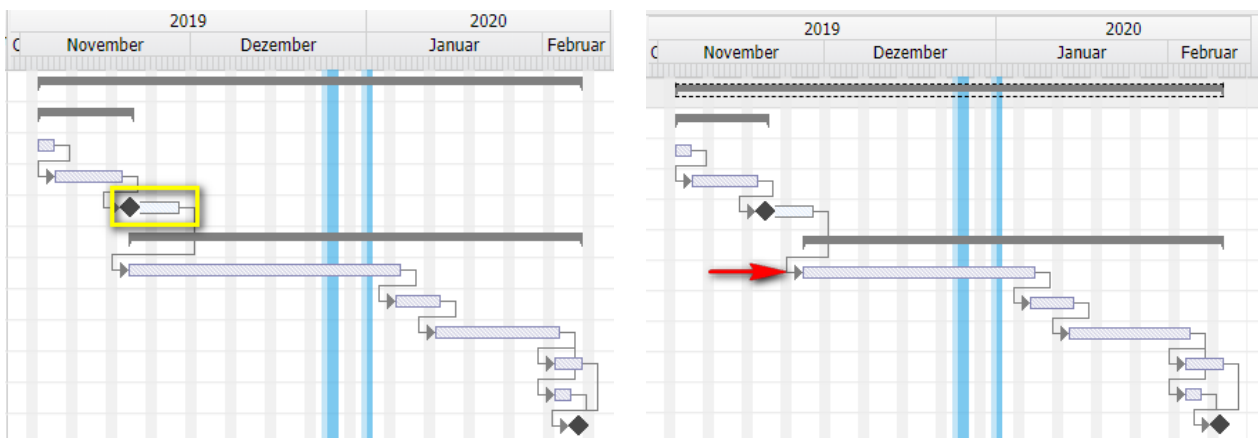
4.8 Resource Planning

For the example, the following project planning options apply, whereby the first three options are particularly relevant. Absences should be displayed in planning, "Display suitable employees" displays all employees who have assigned the work package activity in the employee data, and "Calculate workload" calculates the workload for the employee in the work package period.

In project planning, all employees who have assigned the required activity are then displayed (with the above settings) for the work packages with workload information. In the example, the work package "requirements catalog" displays the workload of consultants in the period between 11/04/19 and 11/06/19.

The different workloads in the selection box first show the workload of all planned and running projects, then the workload of only running projects and the third value shows the project availability.

If several employees are to work on tasks, the "Split task" dialog box can be used for this assignment (work package and employees). To do this, first select the activity and then click once or more than once on the "Split" icon (in this case twice). Projectile then creates the work packages for the operation.

In the following example, two additional employees are assigned for the "De-

velopment" work package. In addition to Oliver Schröder, the employees Frank Behn and Ute Klaube are also to be scheduled. After assigning the employees in the selection box, the effort can be distributed.

After resource planning and forward calculation, a new schedule then results:
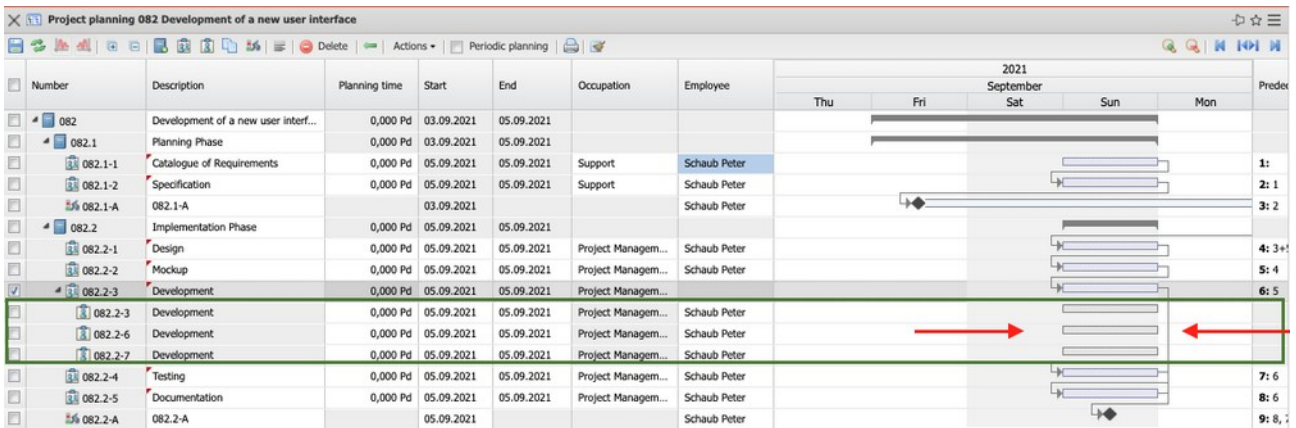
In the project on the "General Data" tab, the subprojects/activities/milestones are located in the "Structure" frame:
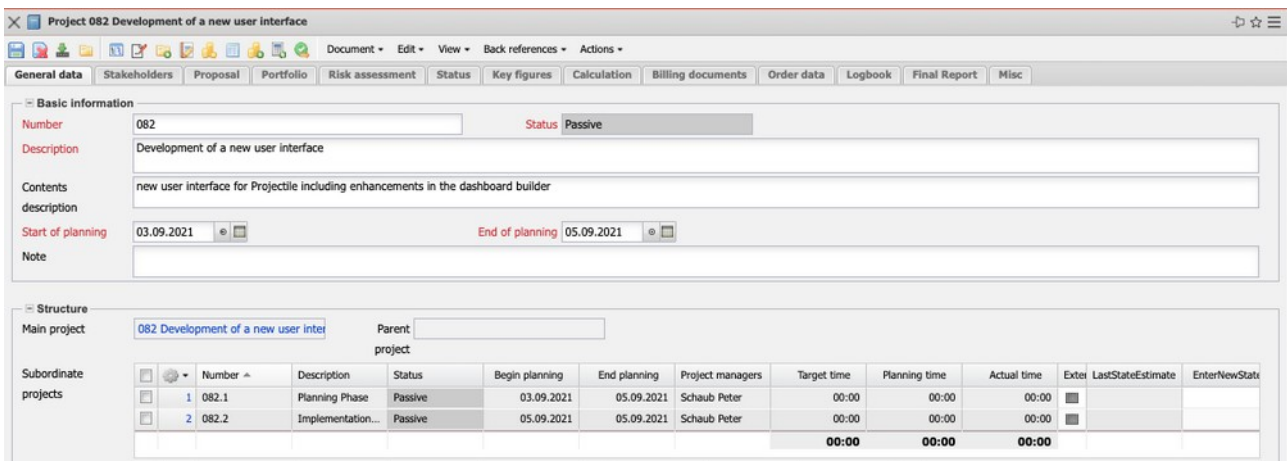
4.9 Succession processes

Activate calculation, offers, orders, project (see part 5).