User Manual

Rillsoft Project 5.3

2011

Legal notice

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Introduction

Rillsoft Project 5.3 is a high-performance software tool for project management, assisting you in project scheduling, project monitoring, project controlling, project management and the optimisation of resource utilization.

Rillsoft Project 5.3 provides the following functions for all project stages

- In **Project scheduling** and **Time scheduling** Rillsoft Project 5.3 allows you to do the following:
  - scheduling personnel resources in the form of:
    - roles,
    - teams,
    - employees.
  - flexibly recording of roles by different levels of qualification with grades cost rates.
  - defining teams by:
    - capacity and costs per hour,
    - assigned employees.
  - recording employees by
    - assignation to several teams,
    - simultaneous assignation to several roles with different qualifications, costs and stages of productivity,
    - independent determination of non-working days (holidays, sickness).
  - assigning employees on the basis of their roles and qualifications by help of an assistant program.
  - entering the output of activities (pit 180 m3).
  - displaying the activity effort ba entering employee days (such as 5 ED).
  - describing and administering the required materials and machines.
  - applying several calendar for the individual resources and a flexible scheduling.
  - being supported by the project portfolio.
  - evaluating excess and shortfall of personnel resources (supply minus demand = contingency).
  - using subprojects and WBS codes to structure the project.
  - viewing the project details from different perspectives.
  - publishing the project schedulings in the intranet / internet in the XML format.
  - optimising the resource utilization of the project to guarantee a well-balanced employee utilization and machine load.

- For **Project monitoring** and **Analysis of project execution** Rillsoft Project 5.3 offers the following:
  - updating the project by recording the percentage of the completion of the activities.
  - providing a variance analysis which matches the parameters, such as time, costs and resource utilization, of the budget to those of actual.
  - quickly detecting deviances of budget from actual by means of a progress line and a baseline.
  - controlling the project financing.

- For **Project management** Rillsoft Project 5.3 provides the following:

  conciliating the actual with the budget

  - assigning or reassigning employees to and from activities in the ongoing project.

- assigning personnel to critical activities, so as to speed up execution.

conciliating the budget with the actual

- separating completed from yet-to-begin activities.
- shifting delayed activities to the deadline.
- optimising resource utilization of not yet completed activities of the project.

Working in networks

In order to avoid conflicts between resources, all users of the network should share the same resource pool file.
After the installation, Rillsoft Project 5.3 accesses the resource pool file, which is stored in the application directory.

In version Rillsoft Project 2007 (v. 4.1) and following, Rillsoft Project offers a separate file repository, that is, program files are stored in the program directory and user files in the user directory.
During installation, all users will be granted full access to the user directory (data directory).

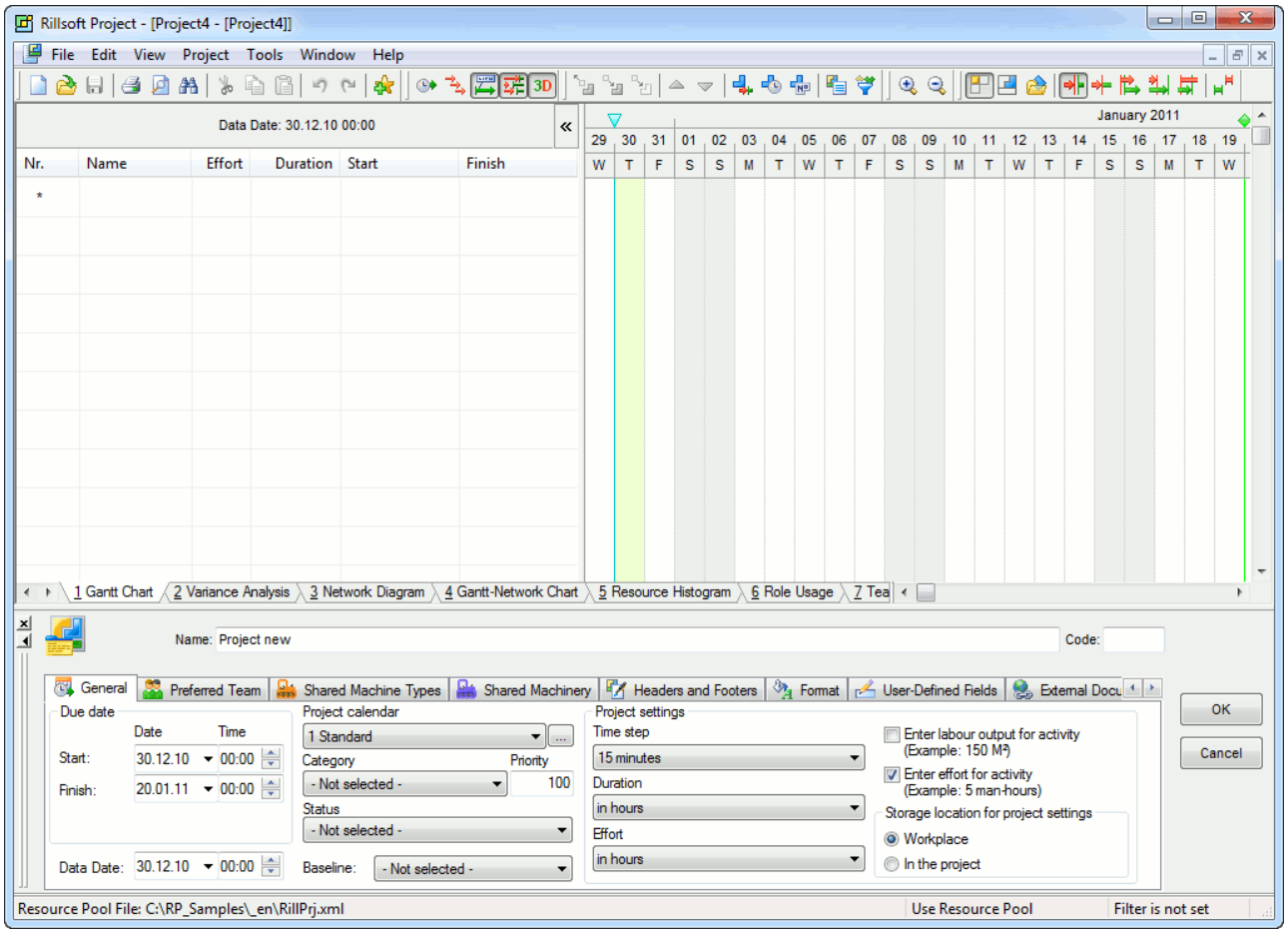
Users do not require write access for the program directory.

Create project

Create new project

In order to create a new project, do as follows:

1. Select the menu item **File / New**.
   The new project and the window Project properties appears.



2. Enter the project name in the field **Name**.
3. Enter the **Start date** and **Finish date** of the project in the tab **General** in the field **Due date**.
4. In the drop down list **Project calendar**, select the calendar you want to use for the project.
5. Click on the button **OK**.

Open project

In order to open a project (also projects in XML format), do as follows:

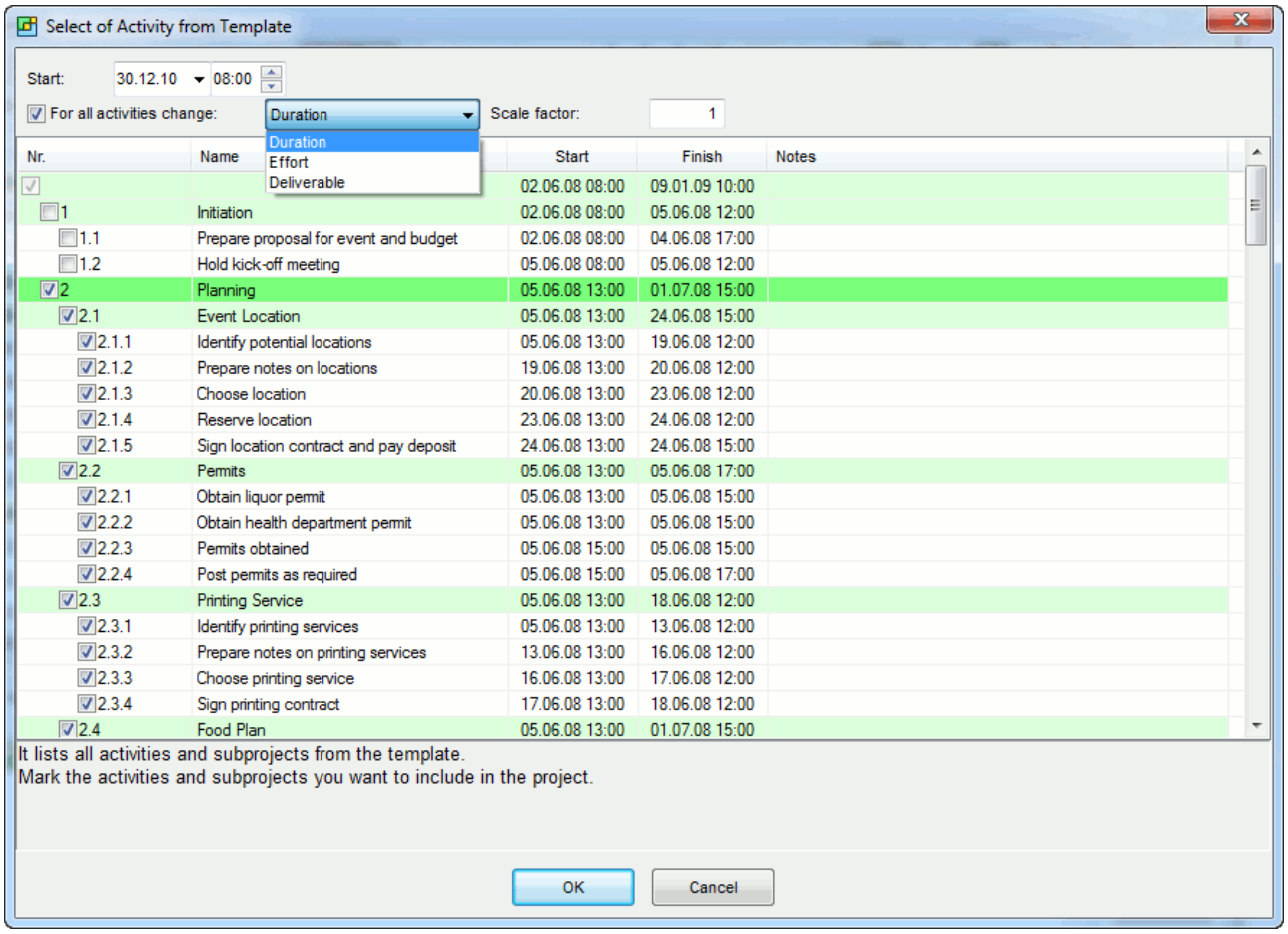
1. Select the menu item **File / Open**.
   The dialogue **Open** appears.
2. Select the preferred project file.
3. Click on the button **Open**.

New project from template

In order to work with templates, you first need to save a project by selecting the menu item **File / Save as template**.

In order to create a new project from a template, do as follows:

1. Select the menu item **File / New from template**.
2. Select the preferred project file in the appearing window.
3. Click on the button **Open**.
4. The dialogue **Select activities from templates** opens.

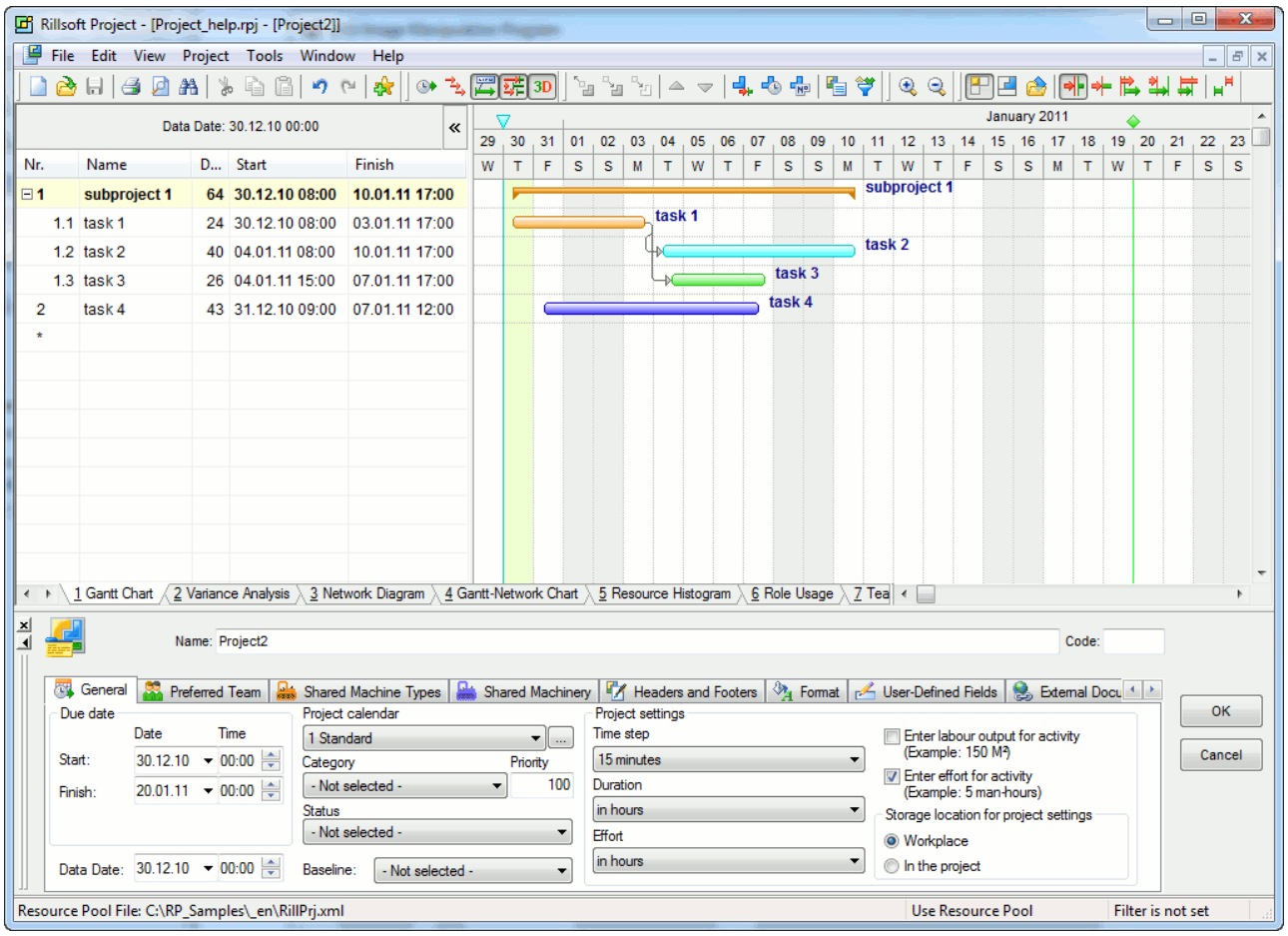


5. You can use the field **Start** to define the time the new project should start.
6. In the marked field **Change in all activities**, you can change either the **Duration** or **Effort** or **Output** of the marked activities by the **Proportionaliti faktor**.
7. It lists all activities and subprojects from the template.
8. Mark the activities and subprojects that you want to include in the project.
9. Click on the button **OK**.

Define project properties

In order to define the properties of a project, you do as follows:

1. Select the menu item **Project / Project properties**. The project's window Object properties opens:



2. Enter the project name in the field **Name**.
3. Enter the project code in the field **Code**.
4. Enter the **Start date** and **Finish date** of the project in the tab **General** in the field **Due date**.
5. In the field **Effective date**, enter the date on which the project progress was last updated.
   Note: The effective date is meant to be entered for reasons of the controlling and management of ongoing projects. The effective date should be identical with the start date of the project to ensure correct scheduling.
6. IIn the drop down list **Project calendar**, select the calendar you want to use for the project.

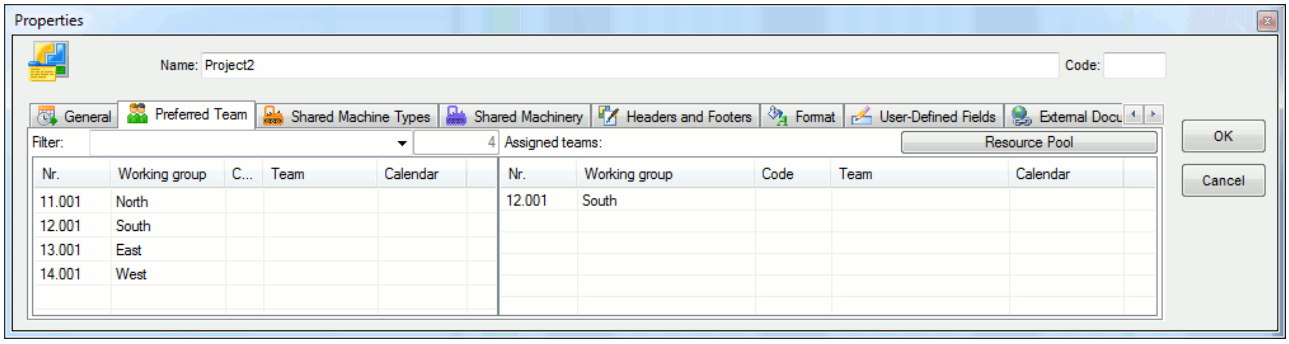
   The button ... allows for the quick access to the current calendar.

7. In the drop down list **Category**, select the category you want to use for the project.
   Note: You can create a drop down menu for the category in the menu item **Tools / Resource pool / Project categories**.
8. In the field **Priority**, enter a value between 1 and 1000. The higher the priority of a project, the more resources can be assigned to it during capacity alignment in relation to other projects in the project portfolio.
   Note: Priority must not be **0**.

9. In the drop down list **Status**, select the status you want to use for the project.
   Note: You can create a drop down menu for the status in the menu item **Tools / Resource pool / Project status**.
10. In the drop down list **Baseline**, select the baseline you wanto to use for the variance analysis.
    Note: This selection requires you to first save a baseline via the menu item **Project / Add baseline**.
11. In the drop down list **Time step**, select the interval for the automatic rounding of start and finish dates as well as duration.
12. In the drop down list **Duration**, select the measurement unit you want to use for measuring the duration.
13. In the drop down list **Effort**, select the measurement unit you want to use for measuring the effort.
14. Activate the check box **Enter labour output for activity** if you want the display of the labour output of the activity to use the entered measurement units and quantities (such as 150 m3).
15. Activate the check box **Enter effort for activity** if you want the display of the effort of the activities to use the entered employee days (such as 5 ED).
16. You can define the **Storage location for project settings**.
    - Activate the radio button **Workplace** if you want to store product settings, such as column order, timescale, etc., on your computer and use them for all of the other projects.
    - Activate the radio button **In project** if you want to store only the project settings for this particular project.
17. Click on the button **OK**.

Preferred teams

You can use the tab **Preferred teams** to assign particular teams to the project.
In calculating the project, the capacity planning for the personnel includes only employees that are members of the **Preferred teams**. You can edit the list **Preferred teams** also at a later point in time.



In order to define **Preferred teams**, do as follows:

1. Activate the tab **Preferred teams** in the window Project properties.
2. Double click on a team in the left table to define a preferred team.
3. Click on the button **OK**.

Define machine types that can be shared

Machine types that can be shared can be used by predefined activities simultaneously without the need to increase the number of machines.

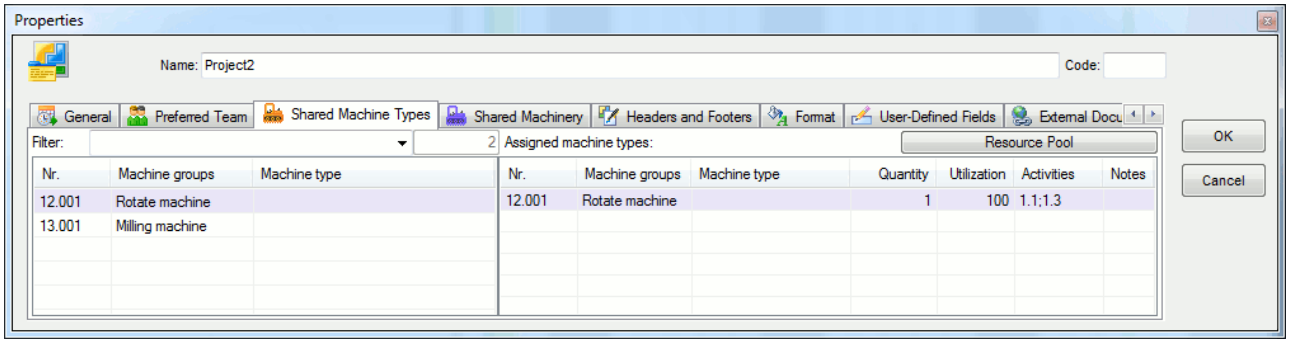
Here, costs are not distributed to the individual activities; they are calculated as a whole and for each of the activity separately.

Example 1 (shared machine types) Scaffolding is defined as a shared resource and will be used for several activities, such as window installation or facade plaster. In the event of timing conflicts of the the activities using the resource, the number of the required scaffold is not added up, but remains constant on the level of the defined number.

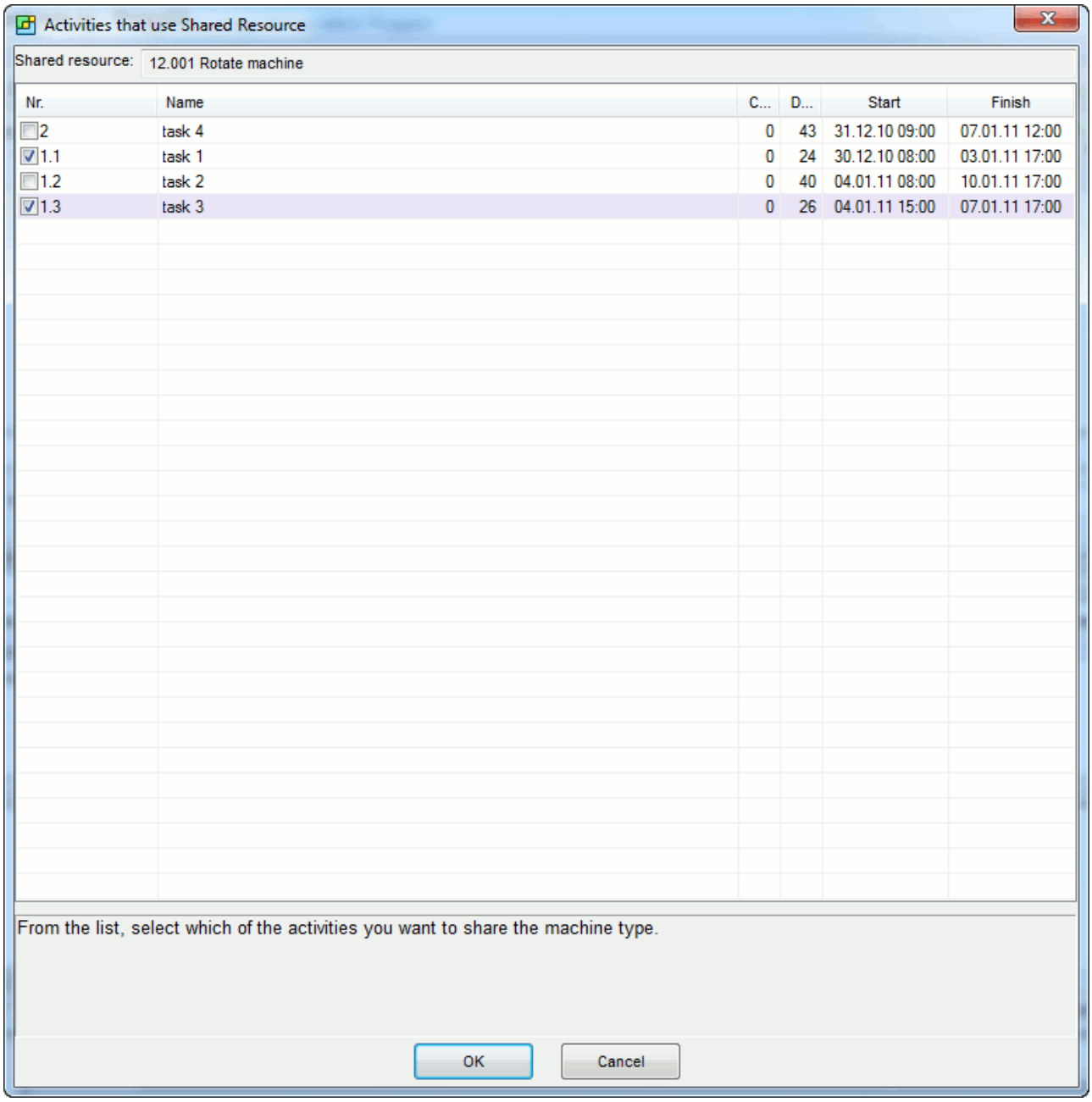
Example 2 (separately used machine types allocated to activities) A special drilling machine is allocated in the activity properties as machine used for several activities. In the event of a timing conflict of activities using the resource, the number of the required machines will be added up.

In order to define shared machine types, do as follows:

1. Activate the tab **Machine types that can be shared** in the window Project properties.



2. Double click on a machine type in the left table to define it as a shared machine type.
3. Enter the **Number** of the required machine types and their **Load** into the table to the right.
4. Cklick on the button in the column **Activities**. The dialogue **Activities using the same resources** opens:



5. From the list of activities, select the ones that should share the machine type.
6. Click on the button **OK**.
   The selected activities are entered into the column **Activities**.
7. Click on the button **OK**.

Note:

- You can reduce the drop down list of machine types by entering a string value of the group name, the name or code into the field **Filter**.

The view **Machine types** (tab Project properties) shows each of the shared machine types separately. The table of the selected, commonly usable machine types shows each of the shared machine types separately.

Define machinery that can be shared

Machinery that can be shared can be used by predefined activities simultaneously without the need to increase the entered number of machines.

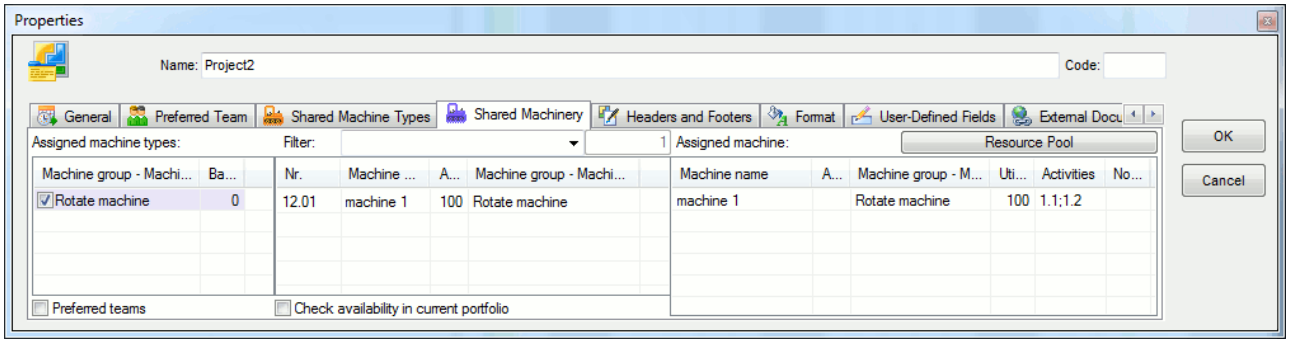
Here, costs are not distributed to the individual activities; they are calculated as a whole and for each of the activity separately.

Example 1 (shared machinery) Scaffolding is defined as a shared resource and will be used for several activities, such as window installation or facade plaster. In the event of timing conflicts of the the activities using the resource, the number of the required scaffold is not added up, but remains constant on the level of the defined number.

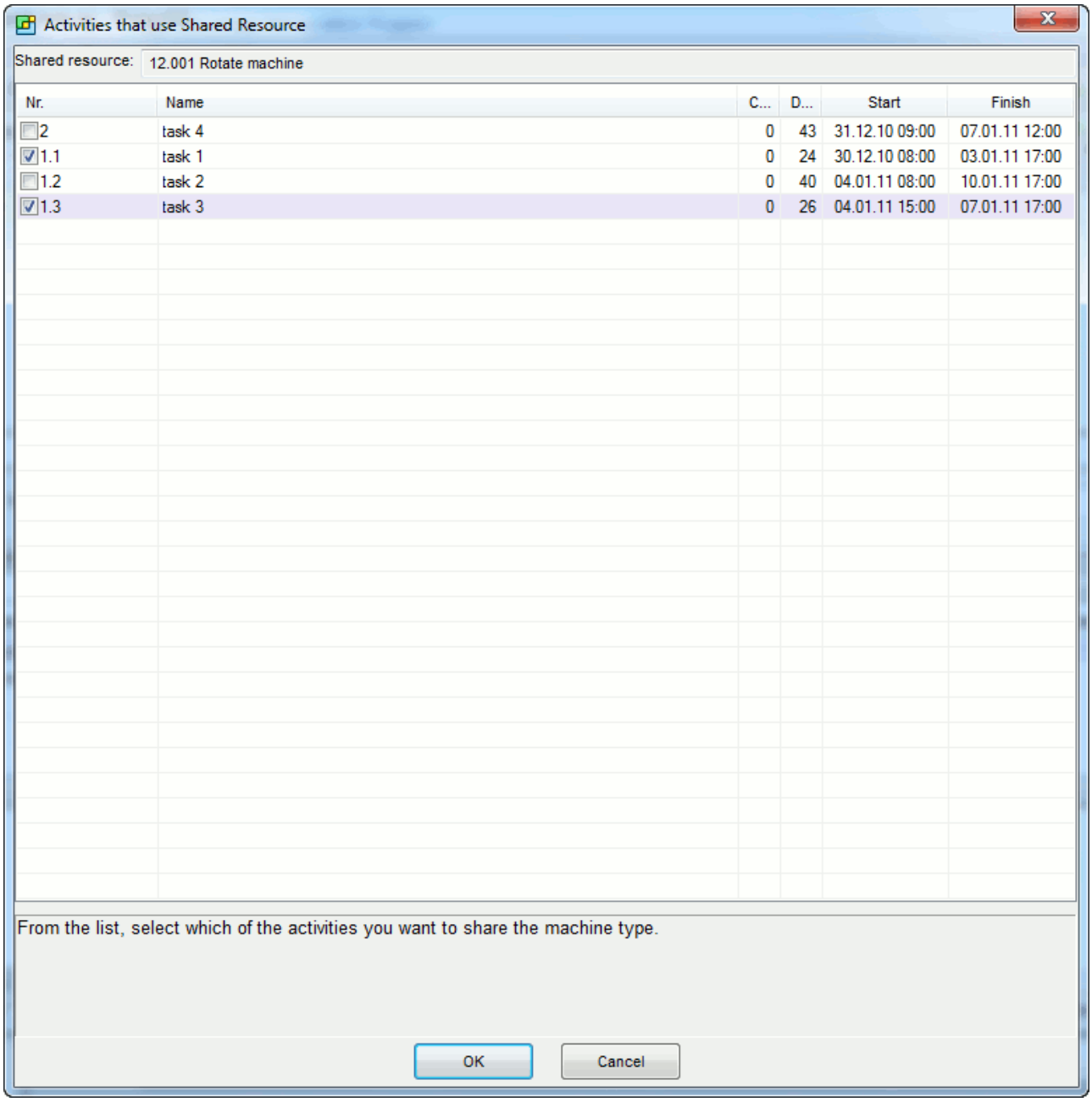
Example 2 (separately used machinery allocated to activities) A special drilling machine is allocated in the activity properties as machine used for several activities. In the event of a timing conflict of activities using the resource, the number of the required machines will be added up.

In order to define a shared machine, do as follows:

1. Activate the tab **Machinery that can be shared** in the window Project properties.



2. Doubleclick on a machine in the left table to define it as a shared machine.
3. Enter the **Load** of the required machines into the table to the right.
4. Cklick on the button in the column **Activities**. The dialogue **Activities using the same resources** opens:



5. From the list of activities, select the ones that should share the machine.
6. Click on the button **OK**.
   The selected activities are entered into the column **Activities**.
7. Click on the button **OK**.

Note:

- You can reduce the drop down list of machines by entering a string value of the group name, the name or code into the field Filter.

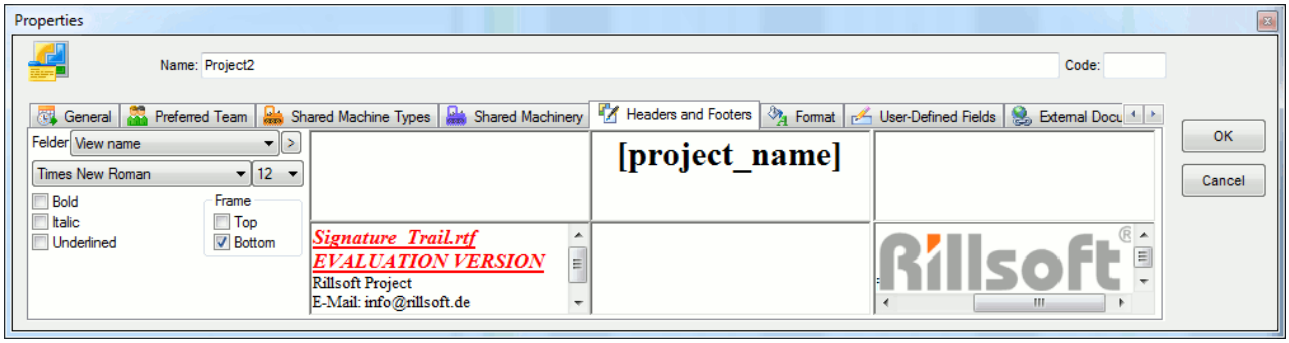
The view **Machinery** (tab Project properties) shows each of the shared machines separately.

The table of the selected, commonly usable machinery shows each of the shared machines separately.

Define header and footer

You can use the header and footer to define the print format of a project schedule. In this, you do not set the headers and footers for each of the pages separately, but all at once.

You can adjust titles (left-top, ... right-bottom, see below) to your requirements.



In order to define the headers and footers of a project, you do as follows:

1. Activate the tab **Headers and footers** in the window Project properties.
2. Click on one of the fields and enter your text or select a predefined field in the drop down list **Fields**.
3. If required, repeat Step 2 for all the other fields.
4. Click on the button **OK**.

Note:

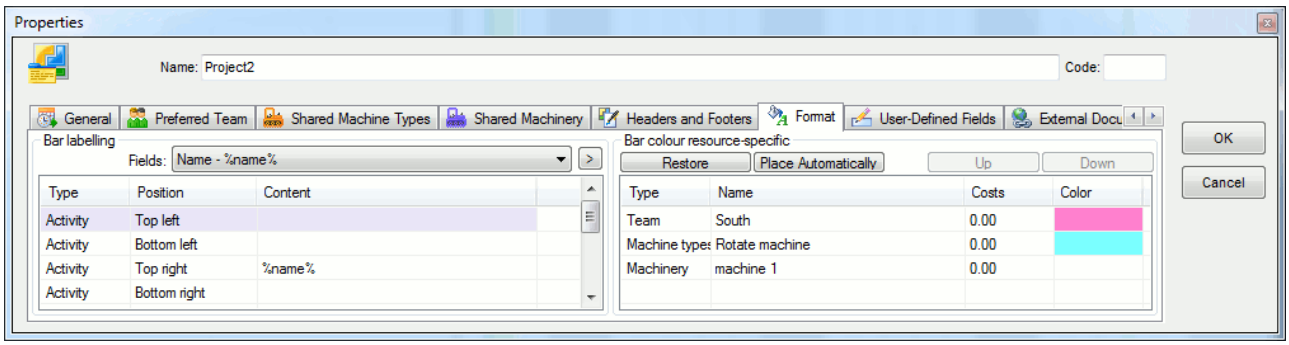
- You can print all views of the project.
- You can format the texts in the individual fields by means of the corresponding functions.

Define format

You can define the bar labelling and colour for activities and subprojects at your convenience.

In order to define the format, do as follows:

1. Activate the tab **Format** in the window Project properties.



You can use the field **Bar labelling** to define the bar labelling of activities and subprojects.

2. Select the variables you want to integrate into the labelling from the list **Fields**.
3. The field **Type** shows which of the objects - activities or subprojects - will be labelled.
4. The field **Position** shows the position of the labelling.
5. The field **Content** shows the content of the labelling. Depending on the preferred position, place the cursor in the corresponding content field.
6. Enter either the labelling or select a predefined field from the drop down list **Fields** and press the button >.

You can use the field **Bar colour resource-specific** to define the resource-specific colour an activity or subproject is going to take on when allocating a resource.

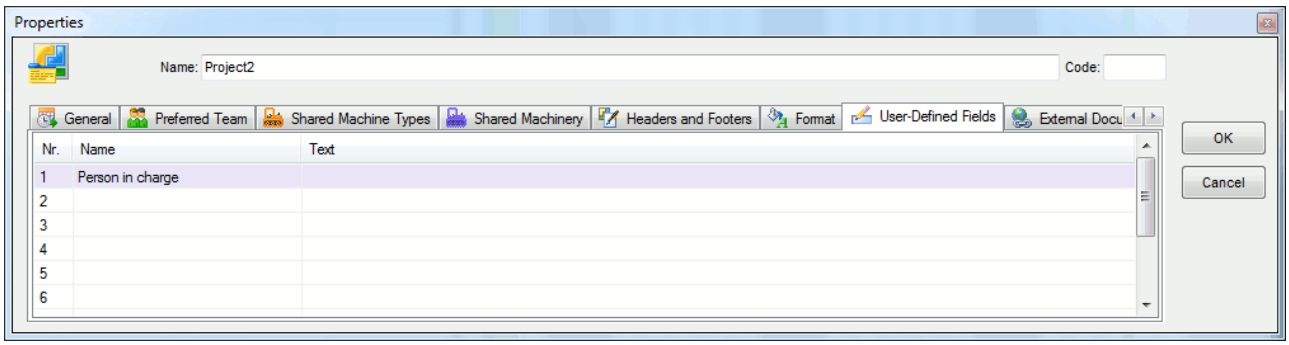
7. If, for instance, you allocate resources to an activity that have been defined in different colours, the activity is shown in the colour of the resource that maintains a higher position in the list.
8. **Restore** - Deletes all dependency rules.
9. **Replace automatically** - Distributes resource colours automatically.
10. **Upwards** – Increases the priority of a resource in the allocation of a colour.
11. **Downwards** – Decreases the priority of a resource in the allocation of a colour.
12. Finally, click on the button **OK**.

Create user-defined fields

You can view user-defined fields in the tables or print them out.

In order to create a user-defined field, do as follows:

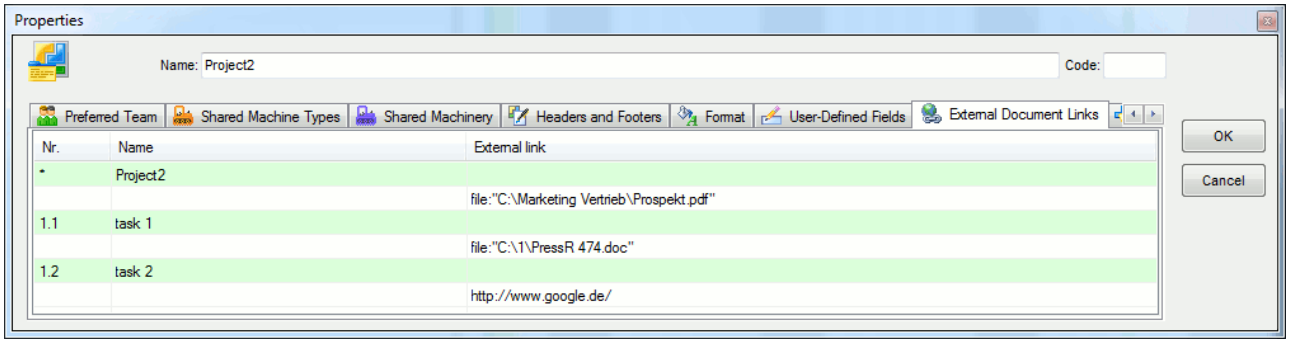
1. Activate the tab **User-defined fields** in the window Project properties.



2. Enter the name of the field into the column **Name**.
3. Enter your information into the column **Text**.
4. Click on the button **OK**.

External links

It lists all links existing in the project / subproject.
The column **Name** shows the names of activities or subprojects.
By doubleclicking on the names, the tab Notes & links in Activity properties appears.
The column **External link** shows the names of the linked files.
By doubleclicking on the file name, the file opens.



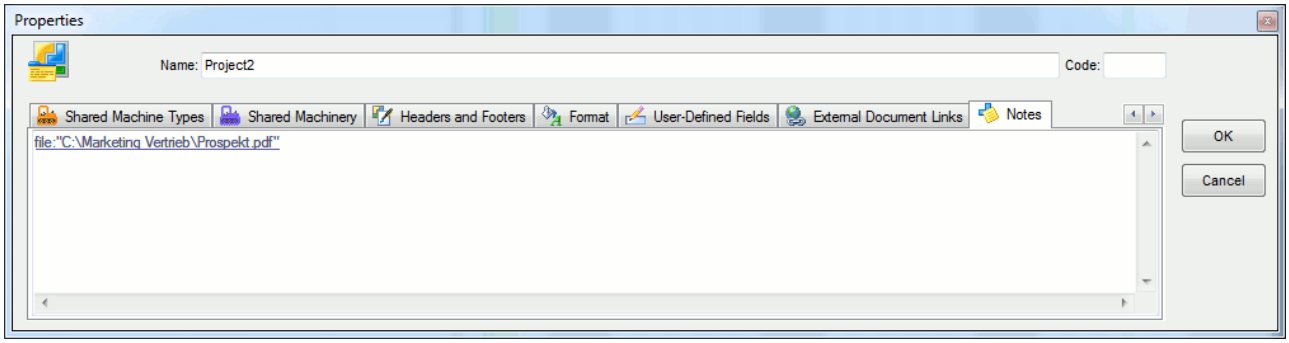
Enter notes & links

You can use this tab to enter your own notes and assign external links to the project / subproject or link the project / subproject to document or graphic files.
You can use the following key words for links:

- http:// for hyperlinks
- https://
- mailto:
- ftp://
- news:
- gopher://
- telnet:
- file: for document and graphic files

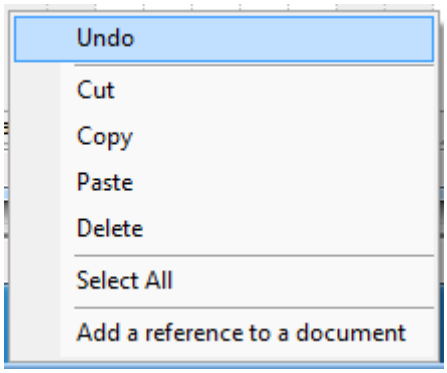
You may proceed as follows:

1. Activate the tab **Notes & links** in the window Properties project / subproject.



2. Enter the text of your notes.
3. Or enter the keyword and file name along with the path.
   such as **file:C:\MyMarketing\Prospekt.pdf**
   Double inverted commas are required when the string value of the file name contains a blank space as part of the text.
   such as **file:"C:\Marketing Vertrieb\Prospekt.pdf"**
4. Click on the button **OK**.

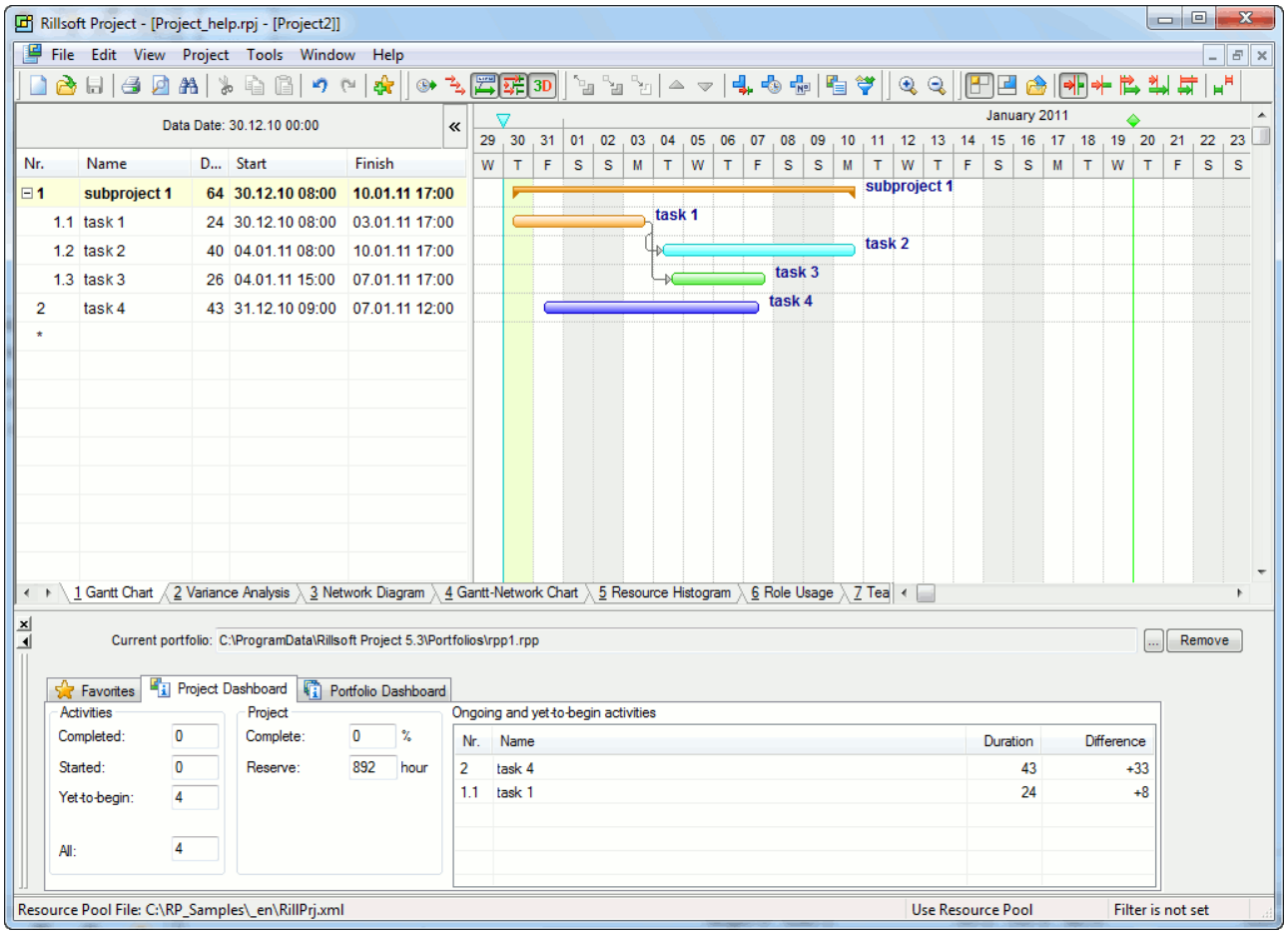
Alternatively: If you rightclick on the tab field in **Notes & links**, you can select one of the following commands in the context menu.



Project overview

In order to view an overview of the project, do as follows:

1. Leftclick on the blank space in the bar diagram or any other view.
   The project's window Object properties appears in the lower part of the program window:



2. Select the tab **Project overview**.

You see all the general information in the appearing window.

View favourites in the project

Create favourites

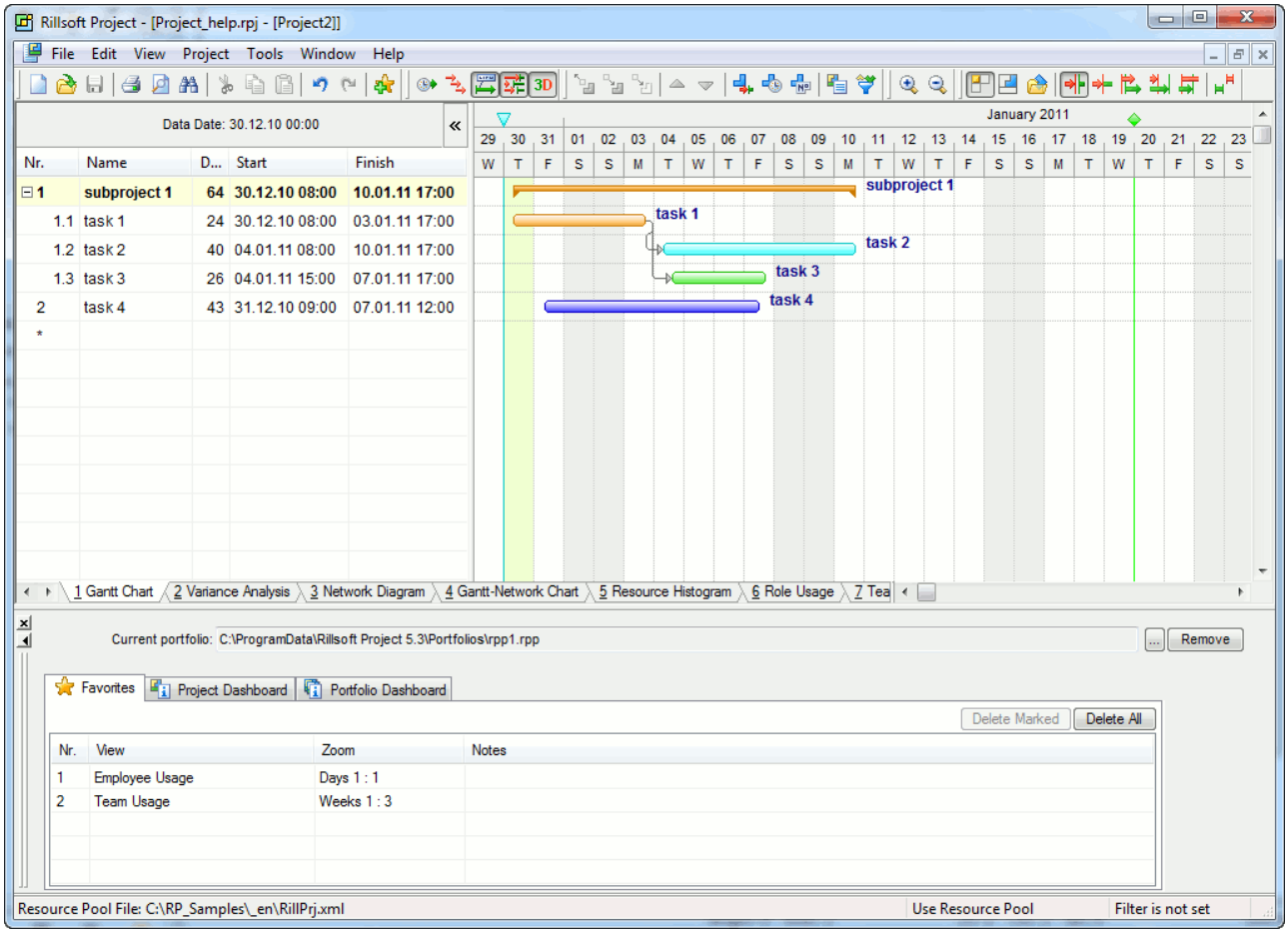
A current view including time unit, filter and scroll position can be stored in the directory Favourites.
This allows for a quick toggling between the views with the defined settings.
In order to create new favourites for a project, do as follows:

1. Select the preferred view.
2. If required, set a time unit and filter.
3. Select the menu item **Edit / Add to favourites**.

Toggle between favourites

In order to view the favourites for a project, do as follows:

1. Leftclick on the blank space in the bar diagram or any other view.
   The project's window Object properties appears in the lower part of the program window:



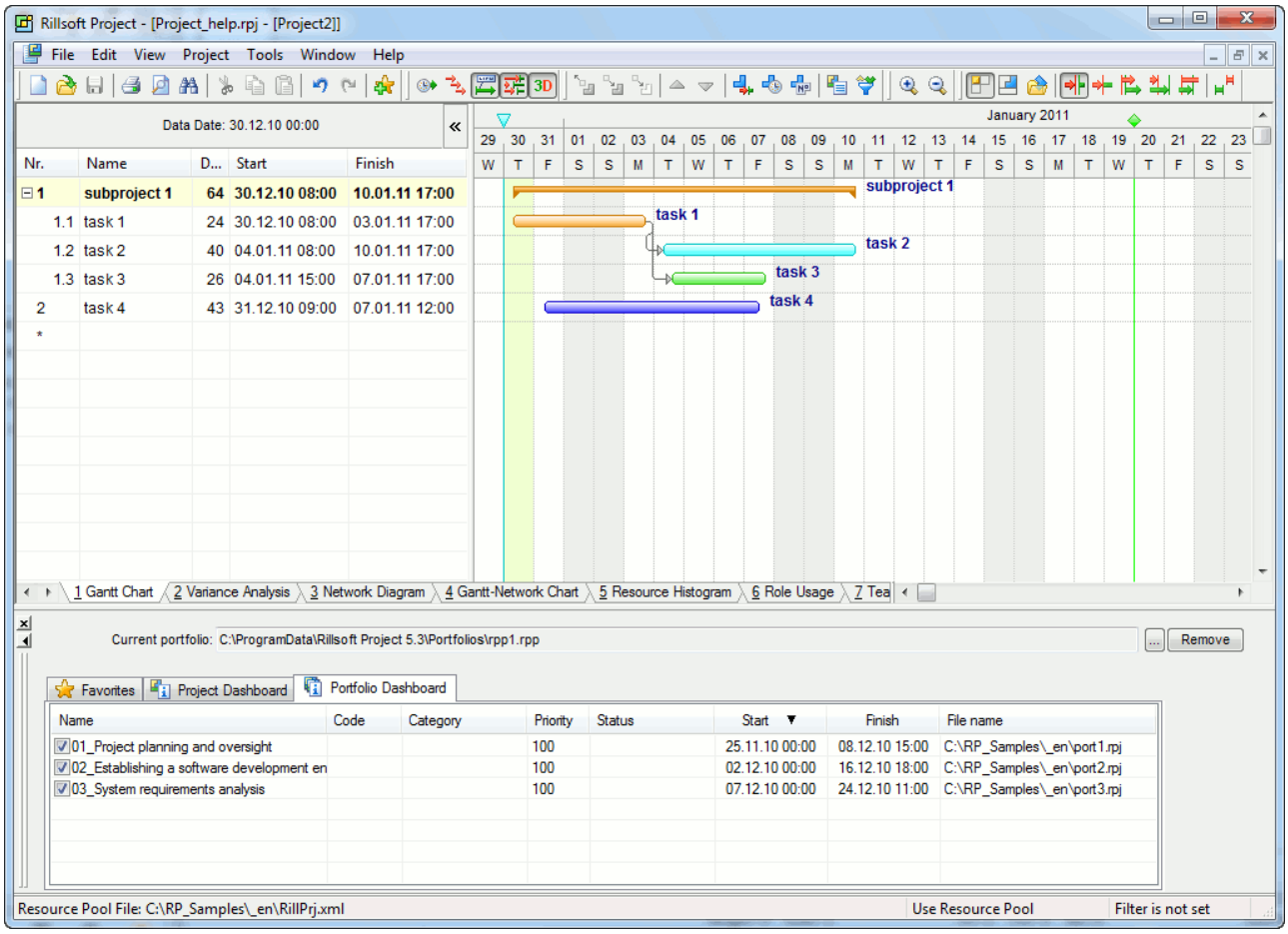
2. Select the tab **Favourites**.
3. Toggle between the listed favourites by using doubleclicks.

You can delete either all favourites or only the ones that are marked by clicking on the buttons **Delete marked** or **Delete all**.

Portfolio overview

The portfolio overview shows projects that have been last opened in the portfolio.
In order to view an overview of the portfolio, do as follows:

1. Leftclick on the blank space in the bar diagram or any other view.
   The project's window Object properties appears in the lower part of the program window:



2. Select the tab **Portfolio overview**.

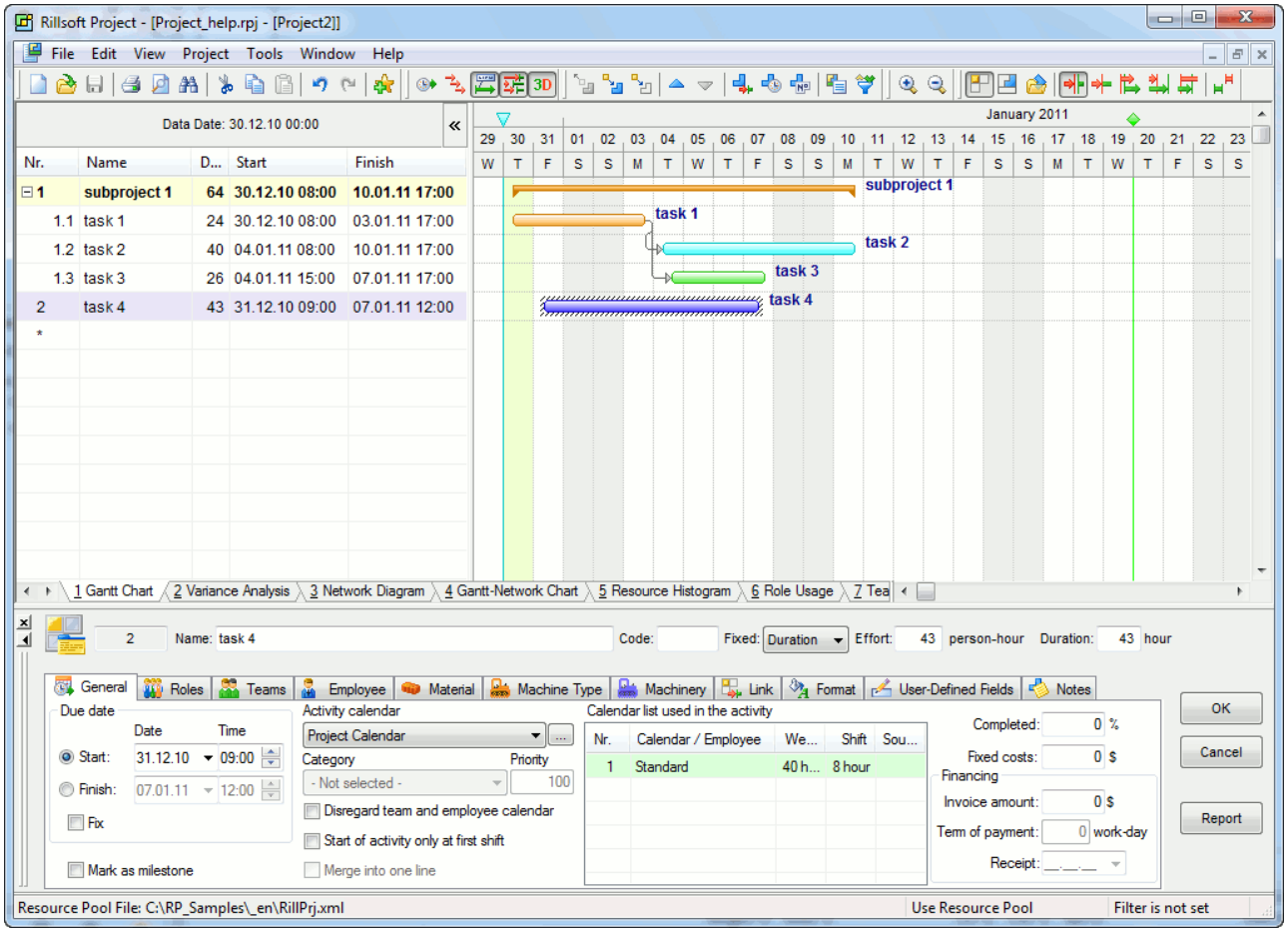
You can use the button ... to select a portfolio.

The portfolio's projects marked with a check mark are taken into consideration in the calculation of the availability of resources.

Create activities

In order to create a new activity in the table, do as follows:

1. Choose the icon button **Activity** from the **tool bar**.
2. Enter a name for the activity into the row featuring an asterisk (*).



Alternative 1: You can use the mouse to draw an activity open in the diagram. This way, start date and finish date as well as activity duration will be defined at the same time.

Alternative 2: You can create an activity via the diagram field of the context menu.

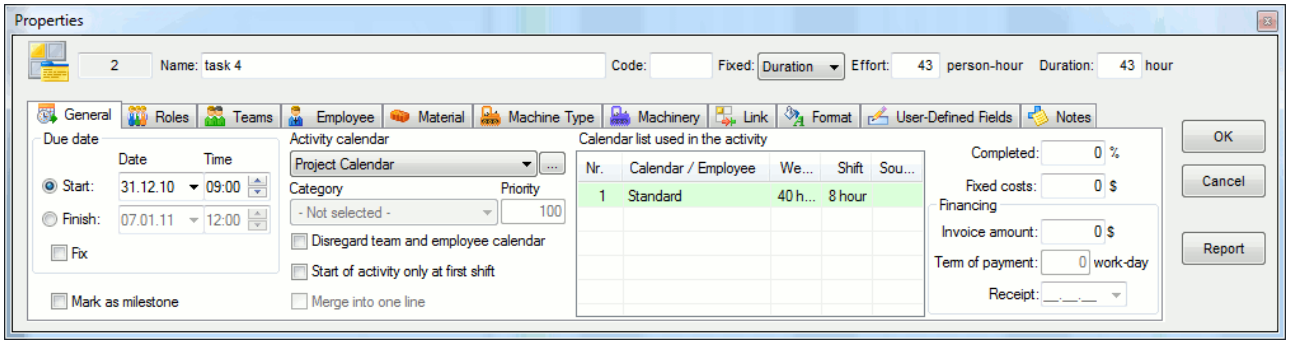
In order to create a new activity in any position, do as follows:

1. Rightclick on the spot in the bar diagram where you want to place the created activity.
2. From the context menu, choose the command **New activity**.

Edit activities

In order to edit any parameter of an existing activity, do as follows:

1. In the diagram, click on the activity whose parameter you want to edit.
2. Activate the required tab in the window Properties and make the changes.



3. Click on the button **OK**.

Alternative 1: You may make the changes to the most important activity parameter directly in the table of the bar diagram.

Alternative 2: You may use the mouse to shift the activity in the diagram, so as to change its time parameters or duration.

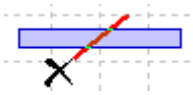
Alternative 3: You can quickly check the percentage of completion if you select the menu item **Completed** in the context menu.

Delete activities

In order to delete an existing activity, do as follows:

1. Rightclick on the activity you want to delete.
2. From the context menu, choose the command **Delete**.

Alternatively: You can quickly delete an existing activity by clicking on the blank space in the diagram with the right mouse button pressed down and striking out the activity.



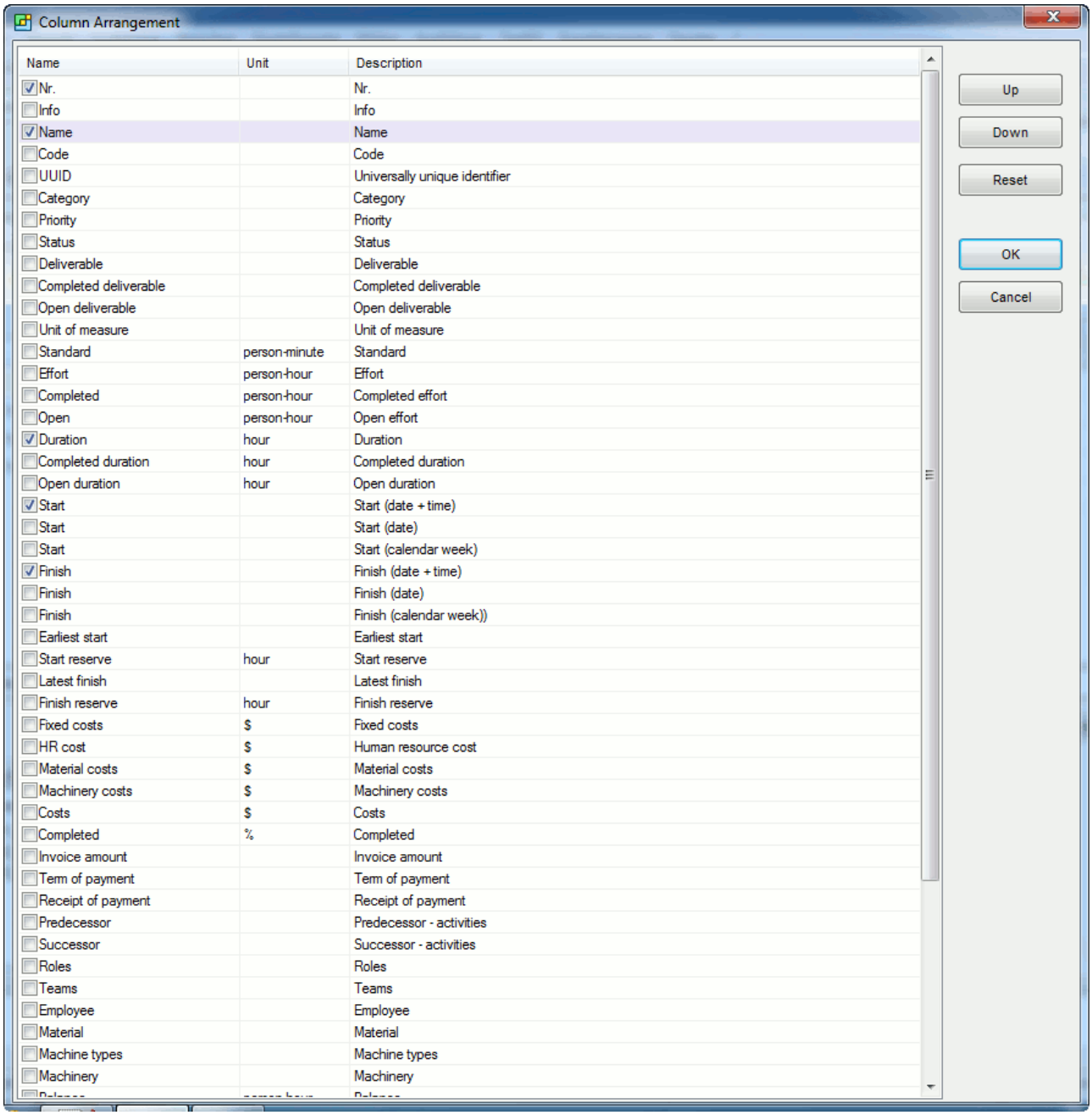
Working with activity and subproject tables

The tables Activity and Subproject display the most important parameters. You can adjust the tables to you requirements by doing the following:

- rightclick on the column names of the table and choose **Select properties** in the context menu.
  In the appearing window, you can edit the column layout and choose which of the columns (also user-defined fields) you want to have on display.
- change the width of a column and so affect the overall width of the table.
- temporarily collapse and unfold a table via the button.

Navigation

- You can use the arrow buttons **upwards** and **downwards** to toggle between activities and subprojects. You can use the buttons **Tab** and **Shift+Tab** to jump forwards and backwards among the single columns.



Fields in the table

No.	Number of WBS code
Info	Signals whether it has been referred to internal documents or extaernal links from out of an activity / subproject
Name	Name of activity or subproject
Code	Code of activity or subproject
Category	Project category

Priority	Project priority
Status	Project status
Quantity	Quantity of the working result, measured by the measurement unit defined for the activity
Completed	Completed quantity
Open	Open quantity
Measurement unit	Measurement unit for the activity's working result (such as: m3, freight, ...) .
Norm	Norm in man-hours required for the completion of a measurement unit within an activity
Effort	Effort for the activity or subproject
Completed	Completed effort
Open	Open effort
Duration	Duration of the activity or subproject
Completed	Completed duration
Open	Open duration
Start	Start time (date and time of day) of the activity or subproject
Start	Start time (date) of the activity or subproject
Finish	Finish time (date and time of day) of the activity or subproject
Finish	Finish time (date) of the activity or subproject
Earliest possible start	Earliest possible start of activity Caution! Will only be shown if the option **Calculation of contingency reserve** is activated in **Tools / Global settings / General**.
Start, reserve	Contingency reserve (difference between start and earliest possible start). Caution! Will only be shown if the option **Calculation of contingency reserve** is activated in **Tools / Global**

	settings / General.
Latest possible finish	Latest possible finish of activity Caution! Will only be shown if the option **Calculation of contingency reserve** is activated in **Tools / Global settings / General**.
Finish, reserve	Contingency reserve (difference between latest possible finish and finish). Caution! Will only be shown if the option **Calculation of contingency reserve** is activated in **Tools / Global settings / General**.
Fixed costs	Separate costs of the activity or subproject that are not shown by the view of resources
Wages	Costs for the activity or subproject's personnel resources
Material costs	Material costs for the activity or subproject
Machine costs	Machine costs for the activity or subproject
Costs	Total costs for the activity or subproject
Completed	Percentage of completion of the activity / percentage of progress
Amount of invoice	Amount for the invoicing period of the project
Payment period	Period of time in working days for the due date of the payment
Receipt of payment	Date of payment receipt
Predecessor	"From" activities
Successor	"To" activities
Roles	Assigned roles
Teams	Assigned teams
Employees	Assigned employees
Material	Allocated materials
Machine types	Allocated machine types

Machinery	Allocated machinery
Balance	Difference between the demand for assigned roles and the demand for assigned employees (for a quick overview over missed assignations of employees in activities)
User-defined fields 1 - 10	

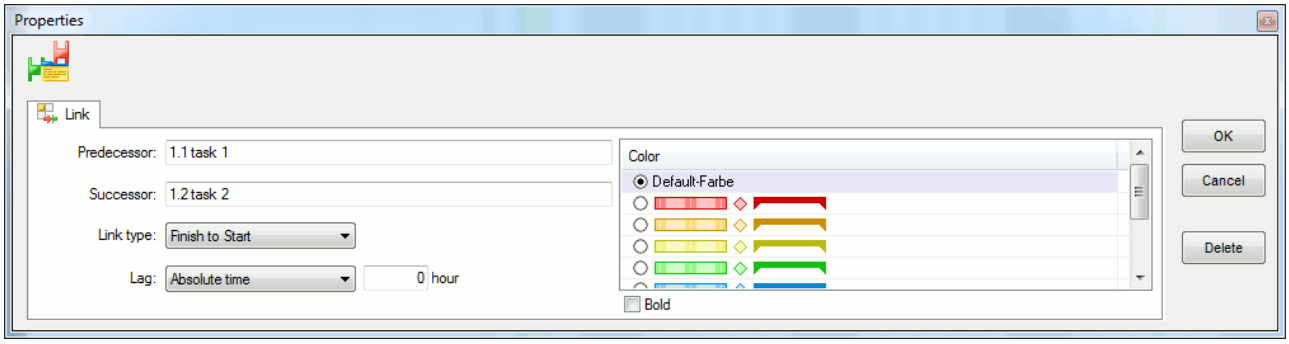
Link activities

Activities can be linked with each other in bar diagrams network diagrams and bar-network diagrams.

The following link types are at your disposal:

Finish-Start	the "from" activity must finish before the "to" activity can start
Finish-Start without delay	the "from" activity starts after the finishing of the "to" activity with a minimal delay
Start-Start	the "from" activity must start before the "to" activity can start
Finish-Finish	the "from" activity must finish before the "to" activity can finish
Start-Finish	the "from" activity must start before the "to" activity can finish
Incompatible activity group	Activities that must not be executed at the same time (timing conflicts)

You can unhide the Properties window of any link by doubleclicking on the link.



Intervals

Intervals can be defined in Project properties in relation to the time unit of the duration (such as hours or days).
You can choose among the following types of intervals:

1. in absolute time (estimated duration including non-working days, such as: 10 hours or 2 days)
2. in calendar time (depending on the current calendar, that is, it ignores non-working hours, such as: 3 working days)
3. in relative time (for instance, a particular percentage, relating to the "to" activity, such as: 50%)

Intervals can have

1. positive (such as: + 2 hours) or
2. negative (such as: - 50% = overlapping)

signs.

Highlight link

Links can be highlighted by means of colour or boldface.

Create link

In order to create a new link, do as follows:

1. Choose the link type via the appropriate icon buttons in the tool bar.
2. Describe a connection by drawing your mouse from one activity to another.
3. Choose the interval type for the link in the Properties window.
4. If wished, enter the Delay (positive or negative) by which you want to delay the "to" acticity depending on the selected type of link. If you have entered a delay, click on the button **OK**.

Alternatively: You can link activities in the diagrams via the context menu.

Notes (restrictions in the creation of links):

- Only one link **Finish-Start without delay** can succeed an activity (the amount of succeeding links **Finish-Start** can be unlimited).
- Only one link **Finish-Start without delay** can precede an activity (the amount of preceding links **Finish-Start** can be unlimited).
- The occurrence of an activity is only allowed in incompatible activity groups.

Edit link

Links can only be edited as long as the succeding activity has not yet started.

In order to change an existing link, do as follows:

1. Mark the link you want to edit by clicking on the line connecting the two activities.
2. From the drop down menu **Link type**, select another link type in the properties window.
3. If wished, enter the **Delay** (positive or negative) by which you want to delay the succeeding acticity depending on the selected type of activity.
4. Click on the button **OK**.

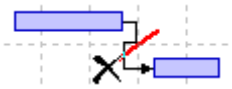
Alternatively: You can change the **Link type** via the context menu of the connecting line.

Delete link

In order to delete an existing link, do as follows:

1. Rightclick on the link you want to delete.
2. From the context menu, choose the command **Delete**.

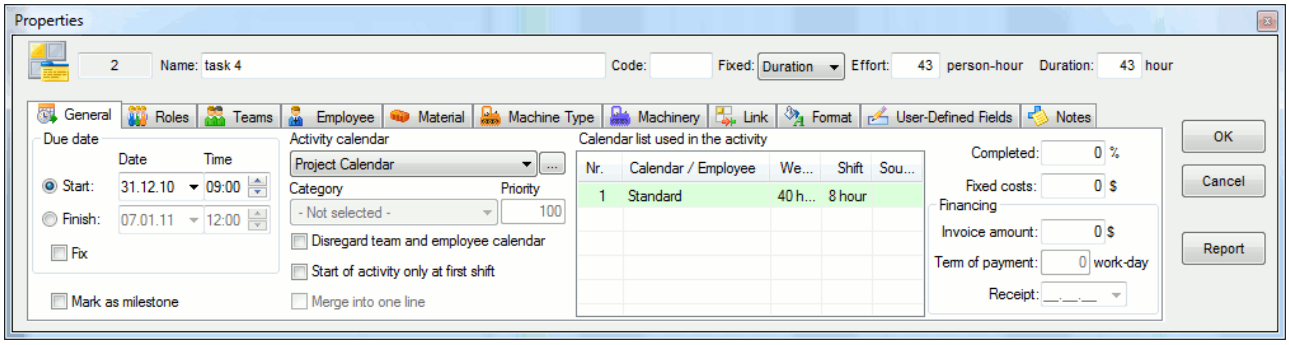
Alternatively: You can quickly delete an existing link by clicking on the blank space in the diagram with the right mouse button pressed down and strike out the link.



Enter activitiy properties

In order to define the properties of an activity, do as follows:

1. Mark the activity whose properties you want to enter.
   The window Object properties opens.



2. Enter the activity name in the field **Name**.
3. Enter the activity code in the field **Code**.

   The following three fields will only be available if you have marked the check box **Enter working result for activity** in the menu item **Project / Project properties** in Project properties.

4. Enter the quantity of labour as measured in the predefined measurement unit into the filed **Quantity**.
5. Enter the measurement unit of the amount of labour (such as m3, load, ...) into the field **Measurement unit**.
6. Enter the norm in man-hours required for the completion of a measurement unit in the field **Norm**.

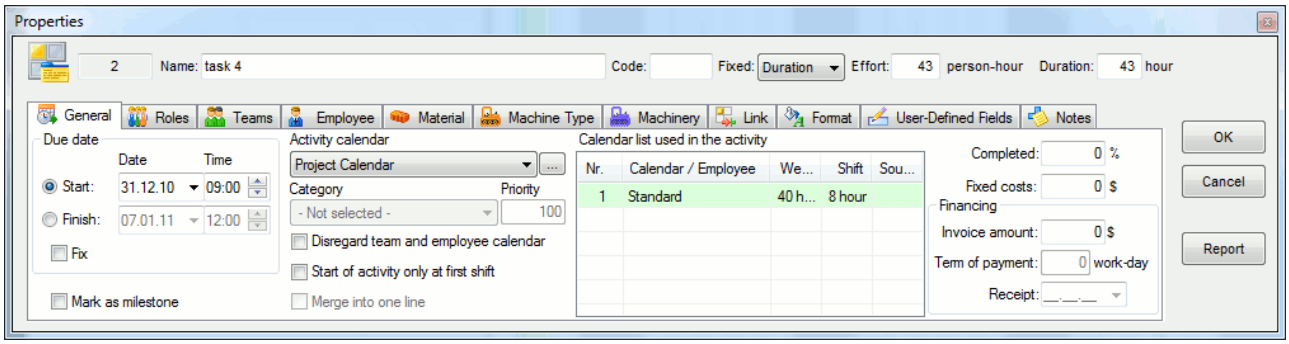
   The following three fields will only be available if you have marked the check box **Enter effort for activity** in the menu item **Project / Project properties** in Project properties.

7. **Fixed duration** - Choose this option to calculate the effort for the activity and the resource utilization, with the duration of the activity remaining unchanged, if possible. You should choose this option if you do the scheduling on the basis of the known duration of the activity. The labour effort of the resources would then be automatically calculated.
8. **Fixed effort** - Choose this option to calculate the duration of the activity and the resource utilization, with the effort remaining unchanged.
   You should choose this option if you do the scheduling on the basis of the known activity efforts for activity roles. The activity duration would then be automatically calculated.
9. **Fixed effort & duration** - Choose this option to calculate the quantity and utilization of resources on the basis of the constant effortand constant duration.
   This option allows you to calculate the quantity and utilization of the required personnel resources.
   Note: This option is only suitable for role assignation.
10. Enter the effort of the activity in the field **Effort**.
11. Enter the duration of the activity in the field **Duration**.
12. Click on the button **OK**.

Define general activity properties

In order to define the general properties of an activity, do as follows:

1. Activate the tab **General** in the window Activity properties.



Field **Due date**

2. Choose the option **Start** if you have a fixed start date of the activity and enter **Date** and **Time**. The finish date of the activity will be calculated automatically.
3. Choose the option **Finish** if you have a fixed finish date of the activity and enter **Date** and **Time**. The start date of the activity will be calculated automatically.
   Note: You can move the start date and finish date of an activity much more quickly in the diagram by using the mouse to shift the activity.
4. Mark the check box **Fix** if the due dates of the activity in the optional date calculations that have been selected via the menu must not be moved.
5. Mark the check box **Mark as milestone** if you want to label the activity as milestone. In this case, activity duration is set to zero.

Field **Activity calendar**

6. Select the calendar you want to use from the drop down list **Activity calendar**.

   The button ... allows for the quick access to the current calendar.

7. Mark the check box **Disregard team calendar and employee calendar** if the team calendar and employee calendar should not be regarded in new activities.
8. Mark the check box **Start of activity only at first shift** if the start of activity is permitted to begin only at the first shift.
9. Mark the check box **Show in one row** if you want to have several activities succeeding in a row displayed hierarchically independent.
10. Enter the percentage of completion of an activity in the field **Completed**.
11. Enter extra costs that are not on display along with the resources into the field **Fixed costs**.

Field **Financing**

12. Enter the amount of the payment period into the field **Invoice amount**.
13. Define a period of time in business days for the due date of the payment in the field **Term of payment**.
14. You can enter the date of the receipt of the payment in the field **Receipt of payment** only if you have declared the milestone to be 100% completed.
    Once you have marked the milestone as 100% completed, the receipt of payment is displayed automatically along with the due date of the milestone plus the term of payment. You may also correct the date.
15. Click on the button **OK**.

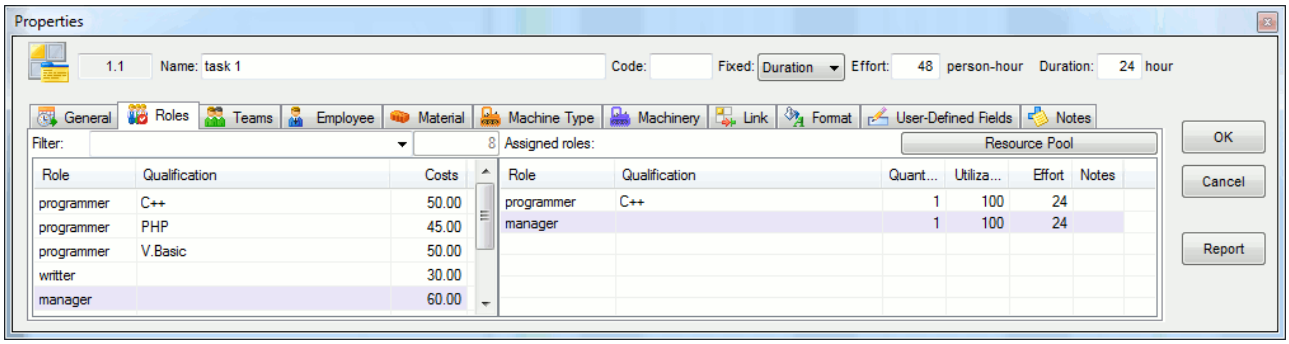
Note:

- The list Used calendar contains all calendar used in the activity and shows you the employees that are using the corresponding calendar. Yoi can view this list to check which of the teams and employees use what calendar.

Assign roles

In order to ssign roles to the selected activity, do as follows:

1. Activate the tab **Roles** in the window Activity properties.



Available roles

2. Enter a string value into the field **Filter** to show only certain roles (search via role group and code) or enter two dots ".." in order to view the roles that have already been used by the project.
3. Doubleclick on the entry in the left table to assign the role to the activity.

Assigned roles

4. Enter a differing value for the number of employees required for this role into the field **Quantity**.
5. Enter a differing value of the percentage the role is utilized in the activity into the field **Utilization**.
6. Enter a differing value into the field **Effort**, for the effort that a role has to perform within the activity.
7. Enter notes that might be crucial for the role in connection with the activity into the the field **Notes**.
8. Click on the button **OK**.

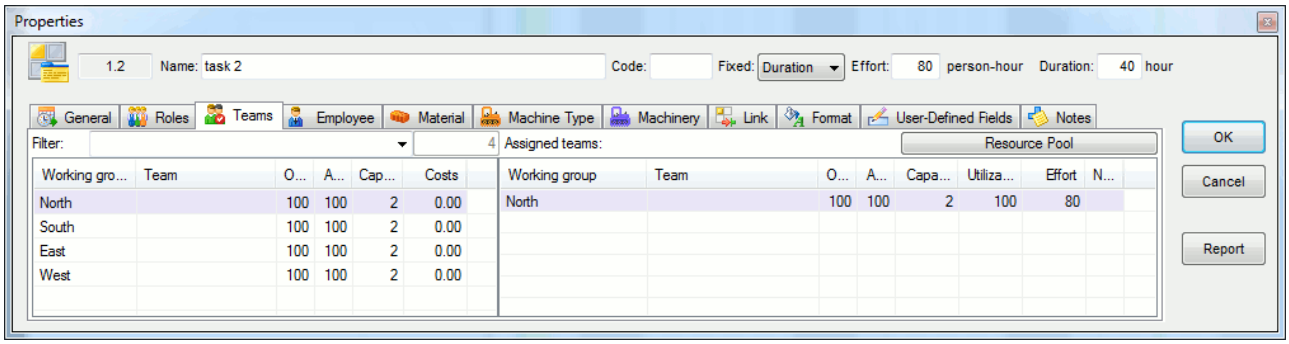
Notes:

- You can adjust the layout of the columns of both tables at your convenience by rightclicking on the column names of the table and selecting the columns you want to adjust.
- You can use the menu item Project / Roles from Calculate employee assignation to define roles within a project for available employees who are required for the completion of the activity. This allows you to easily use these settings as templates for other activities.
- In order to have quick access to the used resources, click on the button **Resource pool** if you are using the general resource pool - or on the button **Project resources** if you are using a project-specific resource pool.

Assign teams

In order to assign teams to the selected activity, do as follows:

1. Activate the tab **Teams** in the window Activity properties.



Available teams

2. Enter a string value into the field **Filter** to show only certain teams (search via working group, team and code) or enter two dots ".." in order to view the teams that have already been used by the project.
3. The field **On-call** shows the percentage of the possible working capacity of a team within activity duration, adjusted for the reported non-working days (holidays/sickness).
4. The field **Availability** shows the percentage of the possible working capacity of a team within activity duration, adjusted for the participation of the team in other activities of the project.
5. Doubleclick on the entry in the left table to assign this team to the activity.

Assigned teams

6. The field **On-call** shows the percentage of the possible working capacity of a team within activity duration, adjusted for the reported non-working days (holidays/sickness).
7. The field **Availability** shows the percentage of the possible working capacity of the team within activity duration, adjusted for the participation of the team in other activities of the project as well as its utilization in this activity.
8. Enter a differing value for the capacity of the team (which is proposed from out of the resource pool) into the field **Capacity**.
9. Enter a differing value of the percentage the team is utilized in the activity into the field **Utilization**.
10. Enter a differing value into the field **Effort**, for the effort that a team has to perform within the activity.
11. Enter notes that might be crucial for the team in connection with the activity into the the field **Notes**.
12. Click on the button **OK**.

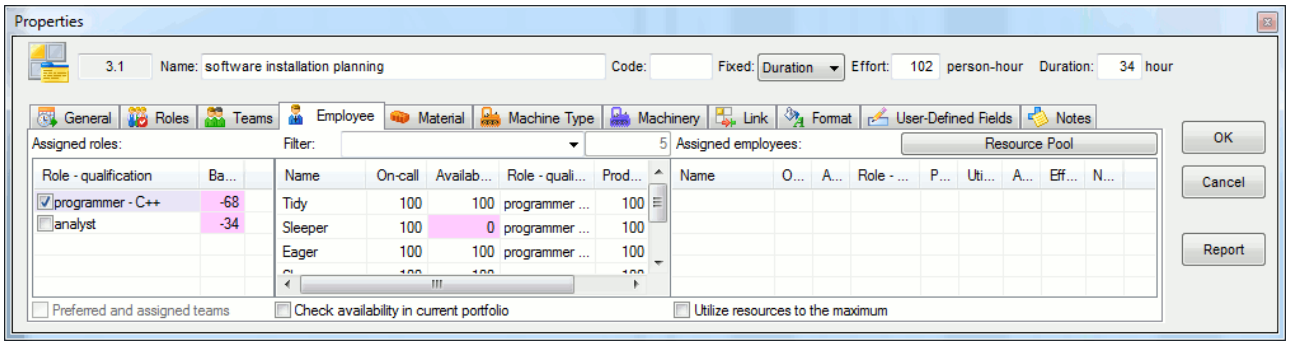
Notes:

- You can adjust the layout of the columns of both tables at your convenience by rightclicking on the column names of the table and selecting the columns you want to adjust.
- In order to have quick access to the used resources, click on the button **Resource pool** if you are using the general resource pool - or on the button **Project resources** if you are using a project-specific resource pool.

Assign employees

In order to assign employees to the selected activities, do as follows:

1. Activate the tab **Employees** in the window Activity properties.



Assigned roles

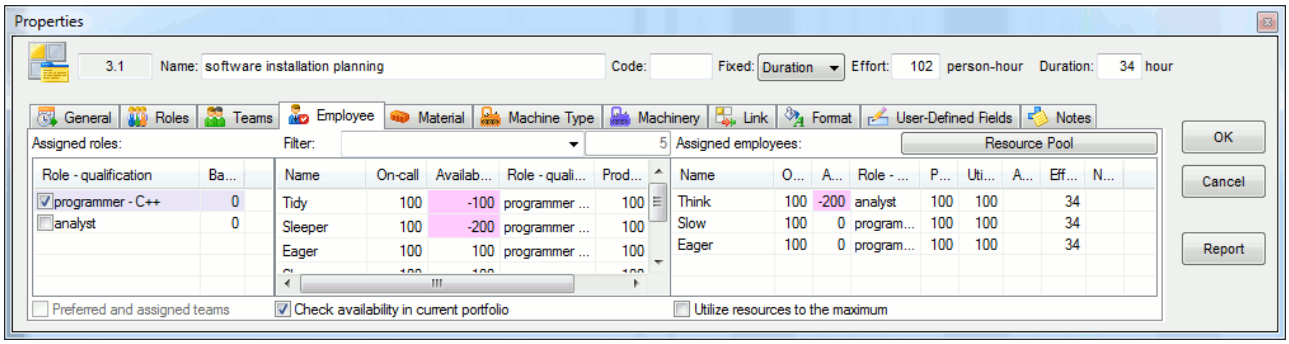
2. Mark the check box of a role in the list Assigned roles in order to use this role as additional filter for the list of employees. The list of employees shows you only those employees who have the appropriate roles and qualifications.
3. The column Quantity-utilization-effort contains the required number of employees whose utilization and effort meet the demands of the role. This column is deactivated by default. If you want to unhide it, please refer to Details.
4. The field Balance contains the dynamically calculated difference between the requested effort for a role and the summarized effort of the already assigned employees with the same role and qualification. This serves as support during the controlling of the required assignations of employees. A negative value, for instance, indicates that more employees with this role and qualification are required.

Preferred and assigned teams

5. Mark the check box **Preferred and assigned teams** to use the assigned teams as an additional filter for the list of employees. The list of employees will show you then only those employees that belong to assigned teams.

   Available employees - The table in the centre lists you, depending on the filter settings (teams, roles, and entries in the field filter), all employees defined in the resource pool and available for being assigned to current activities.

6. Enter a string value into the field **Filter** to show only certain employees (search via employee name and code) or enter two dots ".." in order to view the employees that have already been used by the project.
7. **On-call** - percentage of the possible working capacity of an employee within activity duration, adjusted for the reported non-working days (holidays/sickness).
8. **Availability** - percentage of the possible working capacity of an employee within activity duration, adjusted for the participation of the employee in other activities of the project.
9. Mark the check box **Check availability in current portfolio** in order to take the employee utilization in other projects that are part of the last opened portfolio into account.
   You can view the content of the portfolio by leftclicking on the blank space in the bar diagram and selecting the tab **Portfolio overview**.
10. Doubleclick on the entry in the central table to assign this employee to the activity.



Assigned employees

11. **On-call** - percentage of the possible working capacity of an employee within activity duration, adjusted for the reported non-working days (holidays/sickness).
12. **Availability** - percentage of the possible working capacity of an employee within activity duration, adjusted for the participation of the employee in other activities of the project as well as the their utilization in this activity.
13. Enter a differing value in percent into the field **Productivity** if the productivity of the employee in the activity differs (they are proposed from the resource pool).
14. Enter a differing value in percent into the field **Utilization** if the utilization of the employee in the activity differs. If you have reported a role utilization to the tab Roles, this utilization will be taken over; otherwise, default utilization is 100%.
15. If you click on the icon in the field **Absence**, the window Absence with the calendar field opens where you can define the days the employee will not be participating in the activity.
16. Enter a differing value into the field **Effort**, for the effort that an employee has to perform within the activity.
17. Enter notes that might be crucial for the employee in connection with the activity into the the field **Notes**.
18. Mark the check box **Utilize resources to the maximum** in order to obtain the shortest possible duration of the activity. This redistributes the effort of the resources with identical qualifications in a way to allow for a better utilization of the resource, which can affect the duration of an activity by, for instance, a higher percentage of readiness.
19. Click on the button **OK**.

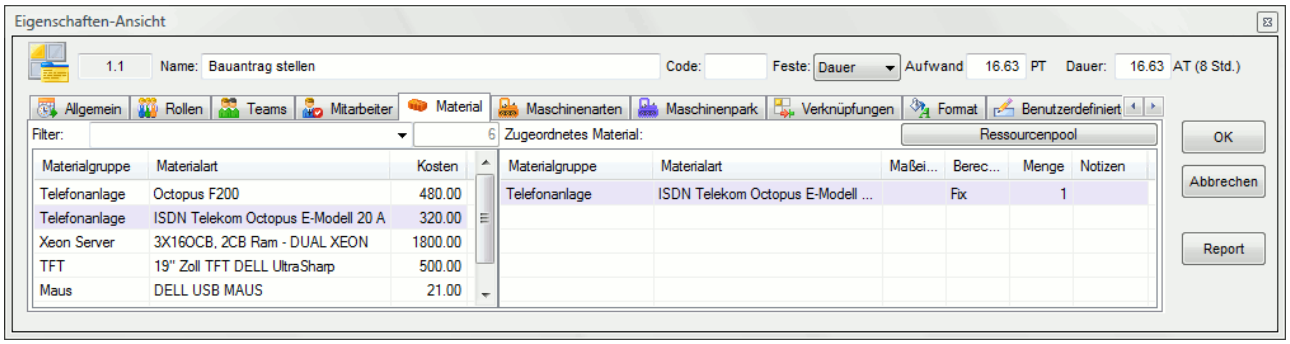
Notes:

- You can adjust the layout of the columns of the three tables at your convenience by rightclicking on the column names of the table and selecting the columns you want to adjust.
- In order to have quick access to the used resources, click on the button **Resource pool** if you are using the general resource pool - or on the button **Project resources** if you are using a project-specific resource pool.

Allocate material

In order to allocate material to the selected activities, do as follows:

1. Activate the tab **Material** in the window Activity properties.



Available Material

2. Enter a string value into the field **Filter** to show only certain materials (search via material group, material type and code) or enter two dots ".." in order to view the materials that have already been used by the project.
3. Doubleclick on the entry in the left table to assign the material to the activity.

Allocated material

4. Select the type for the calculation of material requirements in the field **Calculation**:
   Fixed - The material requirements in the activity is fixed.
   Per hour - The material requirements in the activity is calculated by considering the activity duration.
   Per man-hour - The material requirements in the activity is calculated by considering the effort.
   Per quantity - The material requirements in the activity is calculated by considering the working result.
5. Enter a differing value of the material quantity, which is required for the activity, into the field **Quantity**.
6. Enter notes that might be crucial for the material in connection with the activity into the the field **Notes**.
7. Click on the button **OK**.

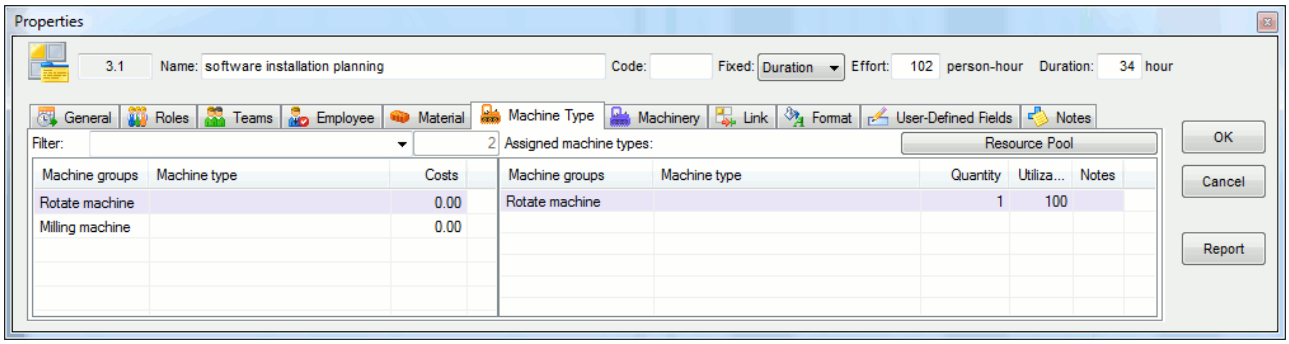
Notes:

- You can adjust the layout of the columns of both tables at your convenience by rightclicking on the column names of the table and selecting the columns you want to adjust.
- In order to have quick access to the used resources, click on the button **Resource pool** if you are using the general resource pool - or on the button **Project resources** if you are using a project-specific resource pool.

Allocate machine types

In order to allocate machine types to the selected activities, do as follows:

1. Activate the tab **Machine types** in the window Activity properties.



Available machine types
The left table shows you all the machine types defines in the basic resources.

2. Enter a string value into the field **Filter** to show only certain machines (search via the machine group, type and code) or enter two dots ".." in order to view the machine types that have already been used by the project.
3. Doubleclick on the entry in the left table to allocate this machine type to the activity.

Allocated machine types
The right table shows you the machine types already selected for the activity.

4. Enter the number of machine types required for this activity into the field **Number**.
5. Enter the machine type utilization of this activity into the field **Utilization**.
6. Enter notes that might be crucial for the machine types in connection with the activity into the the field **Notes**.
7. Click on the button **OK**.

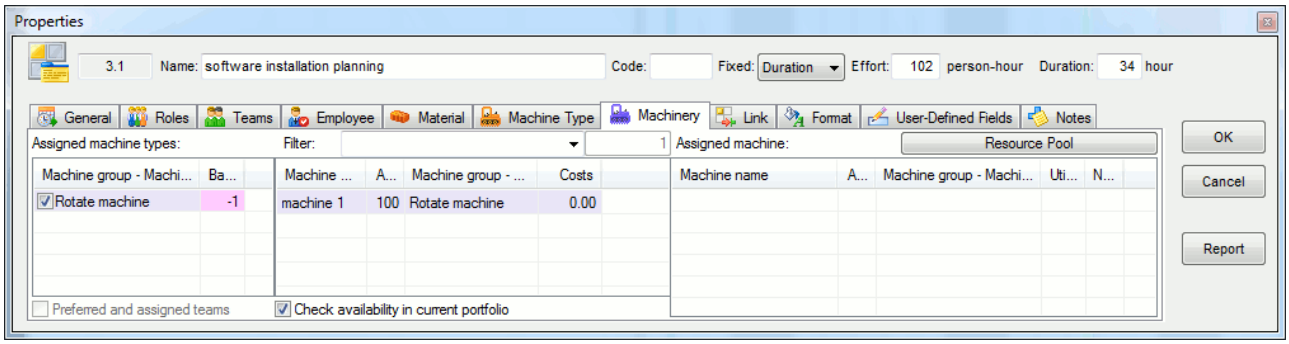
Notes:

- You can adjust the layout of the columns of both tables at your convenience by rightclicking on the column names of the table and selecting the columns you want to adjust.
- In order to have quick access to the used resources, click on the button **Resource pool** if you are using the general resource pool - or on the button **Project resources** if you are using a project-specific resource pool.
- The time of use will be calculated automatically.

Allocate machinery

In order to allocate machines to the selected activities, do as follows:

1. Activate the tab **Machinery** in the window Activity properties.



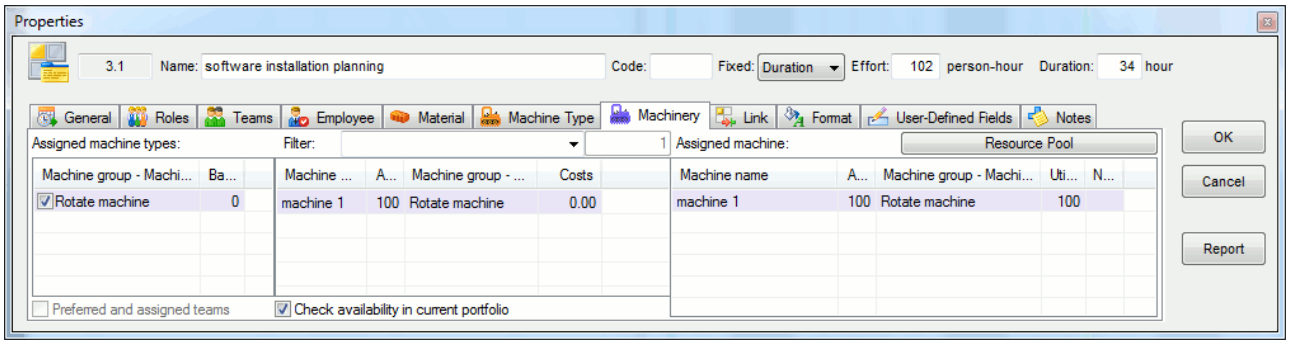
Allocated machine groups - machine types
This table lists the allocated machine types in order to support you in selecting the machinery.

2. The marked check box of a machine group / machine type serves as additional filter for the machinery list. The list Machinery shows you only those machines that have the corresponding machine group and machine type.
3. The field Quantity-utilization contains the required number of machines as well as their utilization for the machine type. This column is deactivated by default. If you want to unhide it, please refer to Details.
4. The field Balance contains the dynamically calculated difference between the requested number for a machine type and the total number of the already assigned machines with the same machine type. Support in the controlling of the required allocations of machinery. A negative value, for instance, indicates that more machines of this machine group and machine type are required.

   Mark the check box **Preferred and assigned teams** to use the assigned teams as an additional filter for the list Machinery. The list Machinery will show you then only those machines that belong to the assigned teams.

   Available machinery
   Depending on the filter settings (teams, machine type and the entries in the field Filter), the central table shows you the machinery as defined in the basic resources. Enter a string value into the field **Filter** to show only certain machines (search via the machine group, type and code) or enter two dots ".." in order to view the machines that have already been used by the project.

5. The field Availability shows the percentage of the possible working capacity of a machine within activity duration, adjusted for the participation of the machine in other activities of the project.
6. Mark the check box **Check availability in current portfolio** in order to take the employee utilization in other projects that are part of the last opened portfolio into account.
   You can view the content of the portfolio by leftclicking on the blank space in the bar diagram and selecting the tab **Portfolio overview**.
7. Doubleclick on the entry in the central table to allocate this machine to the activity.



Allocated machines
The right table shows you the machines already selected for the activity.

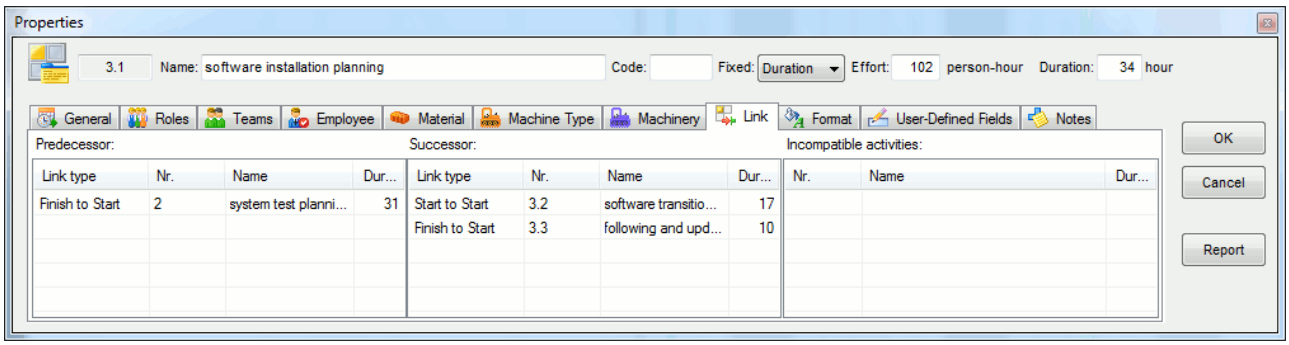
8. Enter the machine utilization of this activity into the field **Utilization**.
9. Enter notes that might be crucial for the machine in connection with the activity into the the field **Notes**.
10. Click on the button **OK**.

Notes:

- You can adjust the layout of the columns of the three tables at your convenience by rightclicking on the column names of the table and selecting the columns you want to adjust.
- In order to have quick access to the used resources, click on the button **Resource pool** if you are using the general resource pool - or on the button **Project resources** if you are using a project-specific resource pool.
- The time of use will be calculated automatically.

Check links

In order to check links, activate the tab **Links** in the window Activity properties.



"From" activity - The left table shows you all link types of the "from" activities along with the corresponding number and description of the activity.

"To" activity - The table in the centre shows you all link types of the "to" activities.

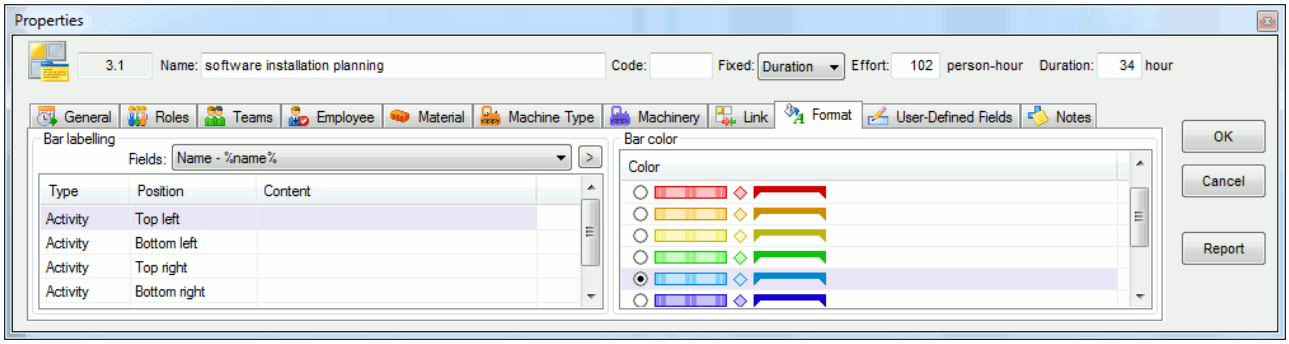
Incompatible activities – The right table shows you all incompatible activities.

Define format

You can define the bar labelling and colour for activities and subprojects at your convenience.

In order to define the format, do as follows:

1. Activate the tab **Format** in the window Activity properties.



   You can use the field **Bar labelling** to define the bar labelling of activities and subprojects.

2. Select the variables you want to integrate into the labelling from the list **Fields**.
3. The field **Type** shows which of the objects - activities or subprojects - will be labelled.
4. The field **Position** shows the position of the labelling.
5. The field **Content** shows the content of the labelling. Depending on the preferred position, place the cursor in the corresponding content field.
6. Enter either the labelling or select a predefined field from the drop down list **Fields** and press the button >.

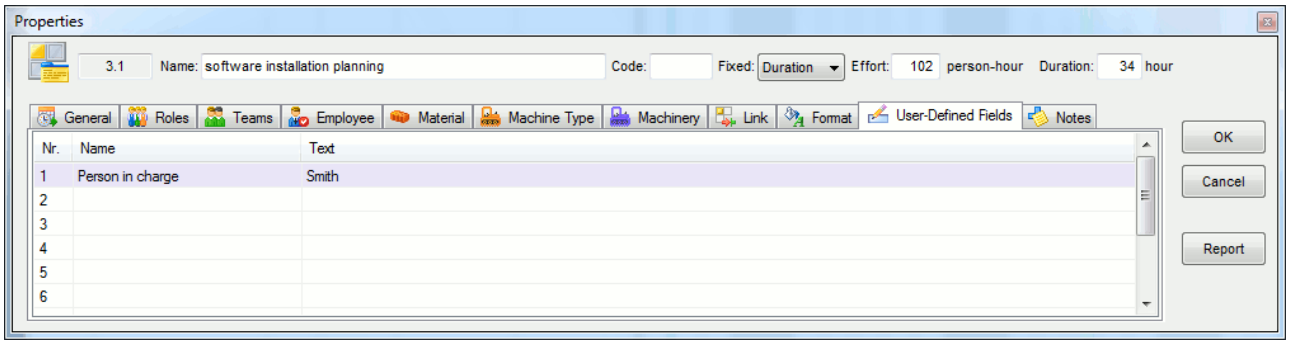
   You can use the field **Bar colour of activity** to define the bar colour of the activity.

7. Select the colour you want to use fo the activity.
8. Click on the button **OK**.

Fill in user-defined fields

In order to fill in user-defined fields, do as follows:

1. Activate the tab **User-defined fields** in the window Activity properties.



2. Enter the text of your choice.
3. Click on the button **OK**.

Note:

- You need to define the **Name** of the user-defined fields first in Project properties.

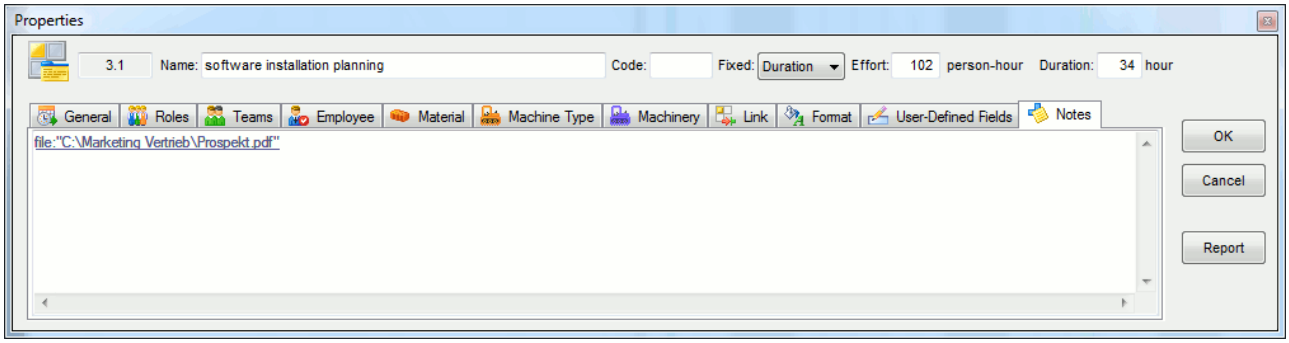
Enter notes & links

You can use this tab to enter notes, attach links to the activity and link the activity with document and graphic files.
You can use the following key words for links:

- http:// for hyperlinks
- https://
- mailto:
- ftp://
- news:
- gopher://
- telnet:
- file: for document and graphic files

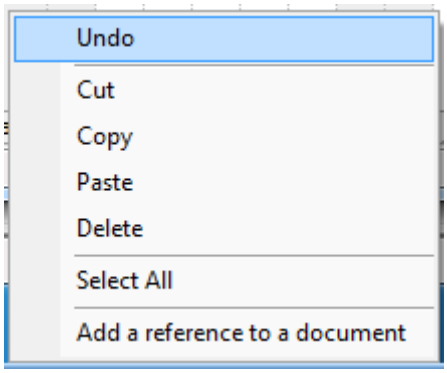
You may proceed as follows:

1. Activate the tab **Notes § links** in the window Activity properties.



2. Enter the text of your notes.
3. Or enter the keyword and file name along with the path.
   such as **file:C:\MyMarketing\Prospekt.pdf**
   Double inverted commas are required when the string value of the file name contains a blank space as part of the text.
   such as **file:"C:\Marketing Vertrieb\Prospekt.pdf"**
4. Click on the button **OK**.

Alternatively: If you rightclick on the tab field in **Notes & links**, you can select one of the following commands in the context menu.

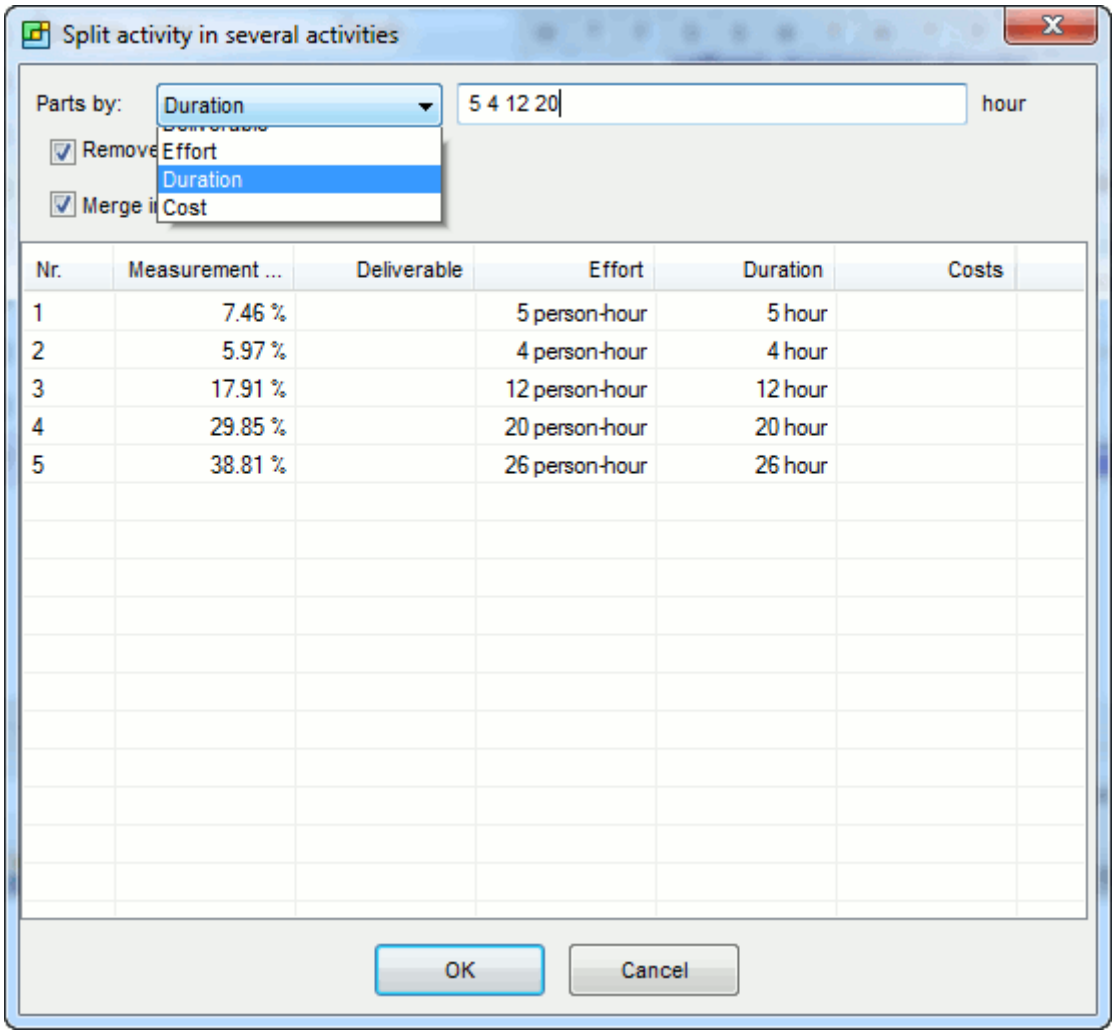


Split activities

You can get hold of this function via the context menu of the activity.
In order to split an existing activity, do as follows:

1. Rightclick on the activity in the diagram field.
2. Select the command **Split** from the context menu and choose one of the following functions:
    1. into several activities
    2. from the completed part
    3. at the first shift
    4. in the event of multiple assignments

Split into several activities



Define the activity parameter according to which you want to split the activities in the field **Split into**.
You can choose between the following parameters - **Percentage, Working result, Effort, Duration, Costs**.
The values to be entered into the next field need to be separated by **blank spaces**.
Mark the check box **Create finish-start links between activities** if you want to link the split activities with each other.
Mark the check box **Show in one row** if you want to have the split activities displayed in one row. The list shows the split activities.

Split from the completed part

This command is activated if a part of an activity has been completed.
In this event, the split date will be shown in brackets. An activity is split into two activities, the first is 100% completed, the second has not yet started.

Split at the first shift

You can choose among the various due dates in the list, which mark the start of the succeeding shifts.

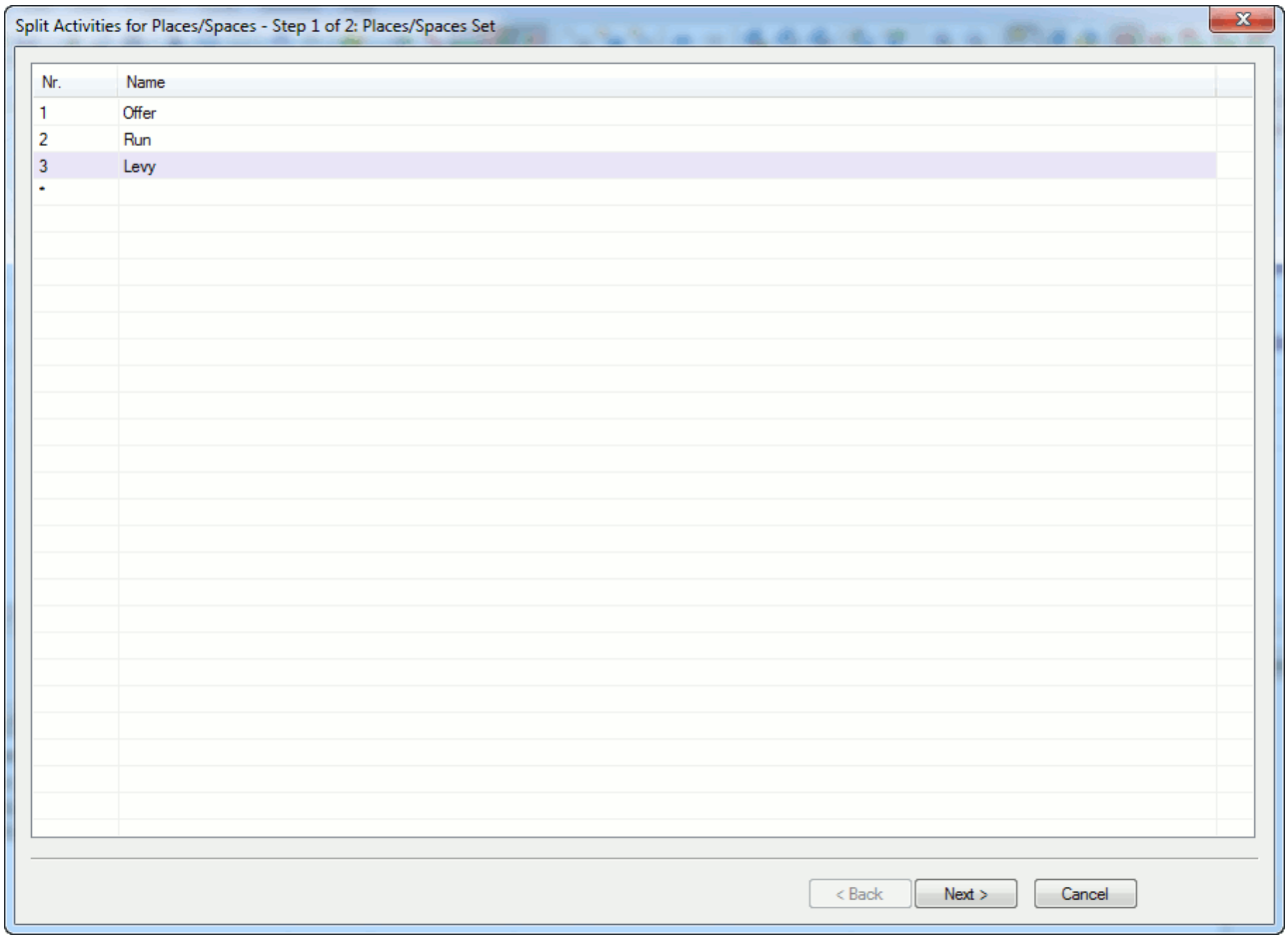
Split in the event of multiple assignments

This function is activated if two or more activities are executed at a time and more than one of these activities have been assigned one and the same resource.
In order to prevent from multiple assigments of aone resource, you can split one activity before the start of the other activity. You will find the program offer you automatically the possible dates.

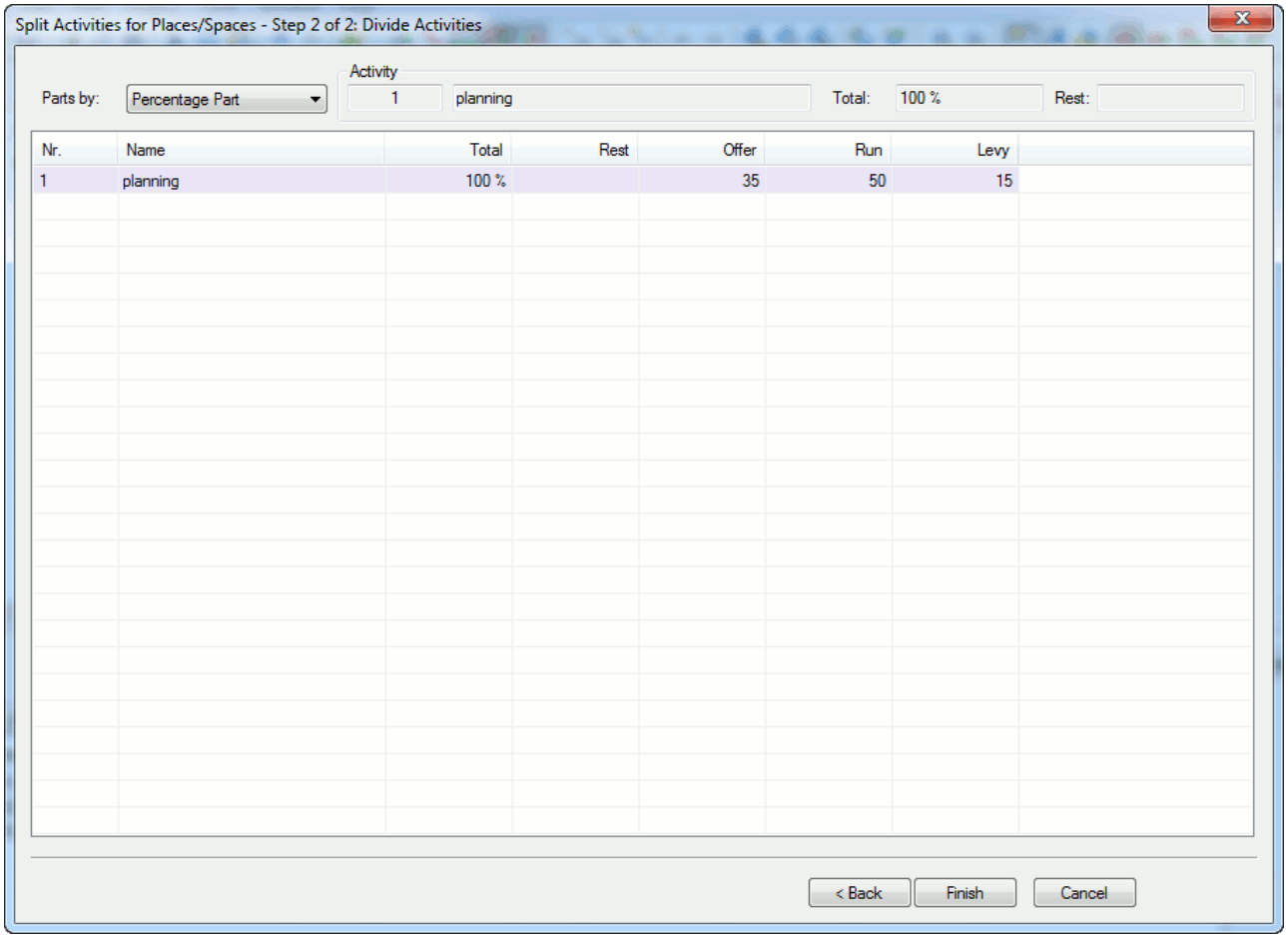
Split activities into places / rooms

In order to split activities into places / rooms, do as follows:

1. Select the menu item **Split project / activities into places / rooms**.

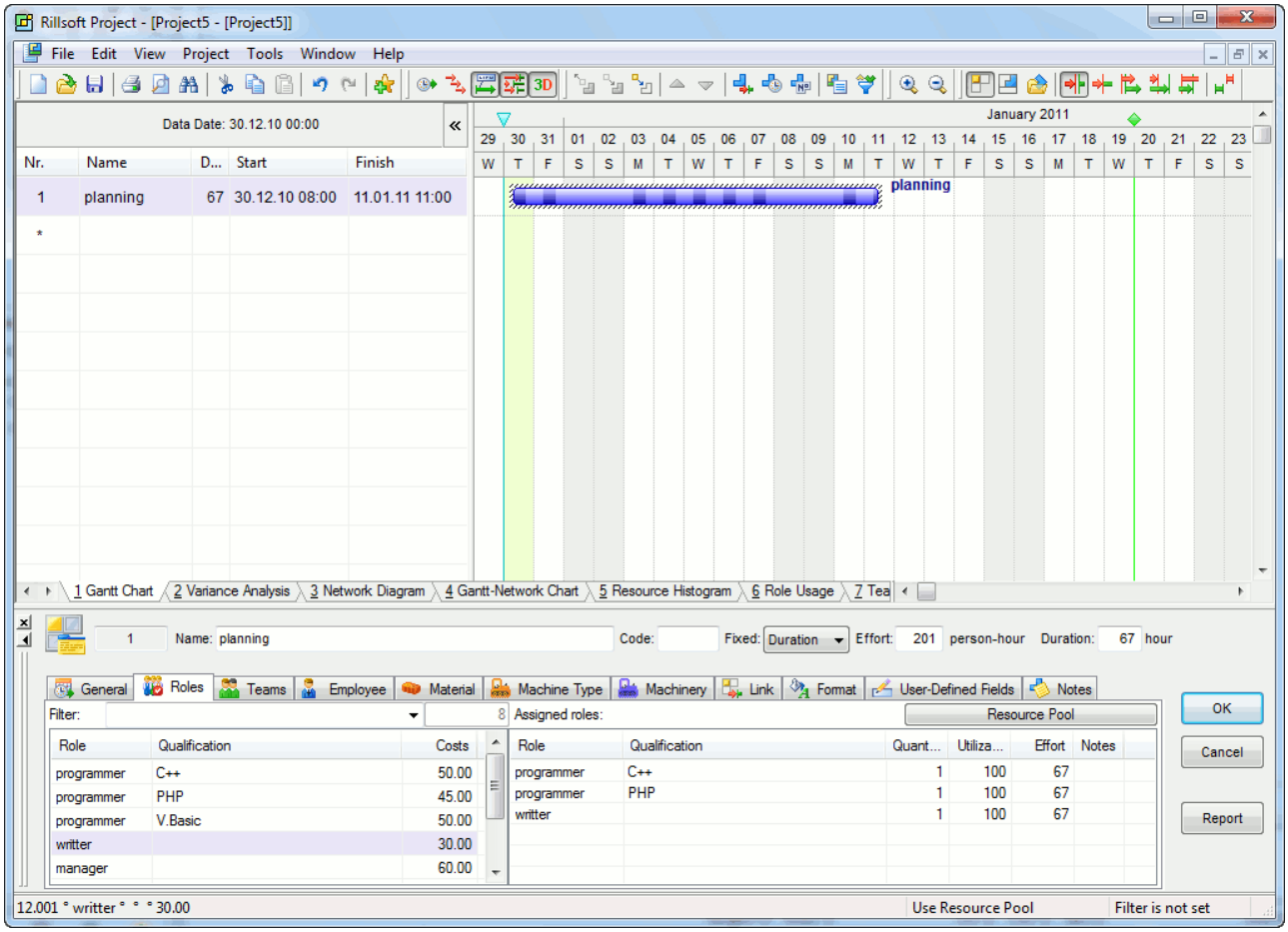


2. Enter the places / rooms you want to later display as subprojects into this list.
   You can use these places / rooms to also split activities in the next step.

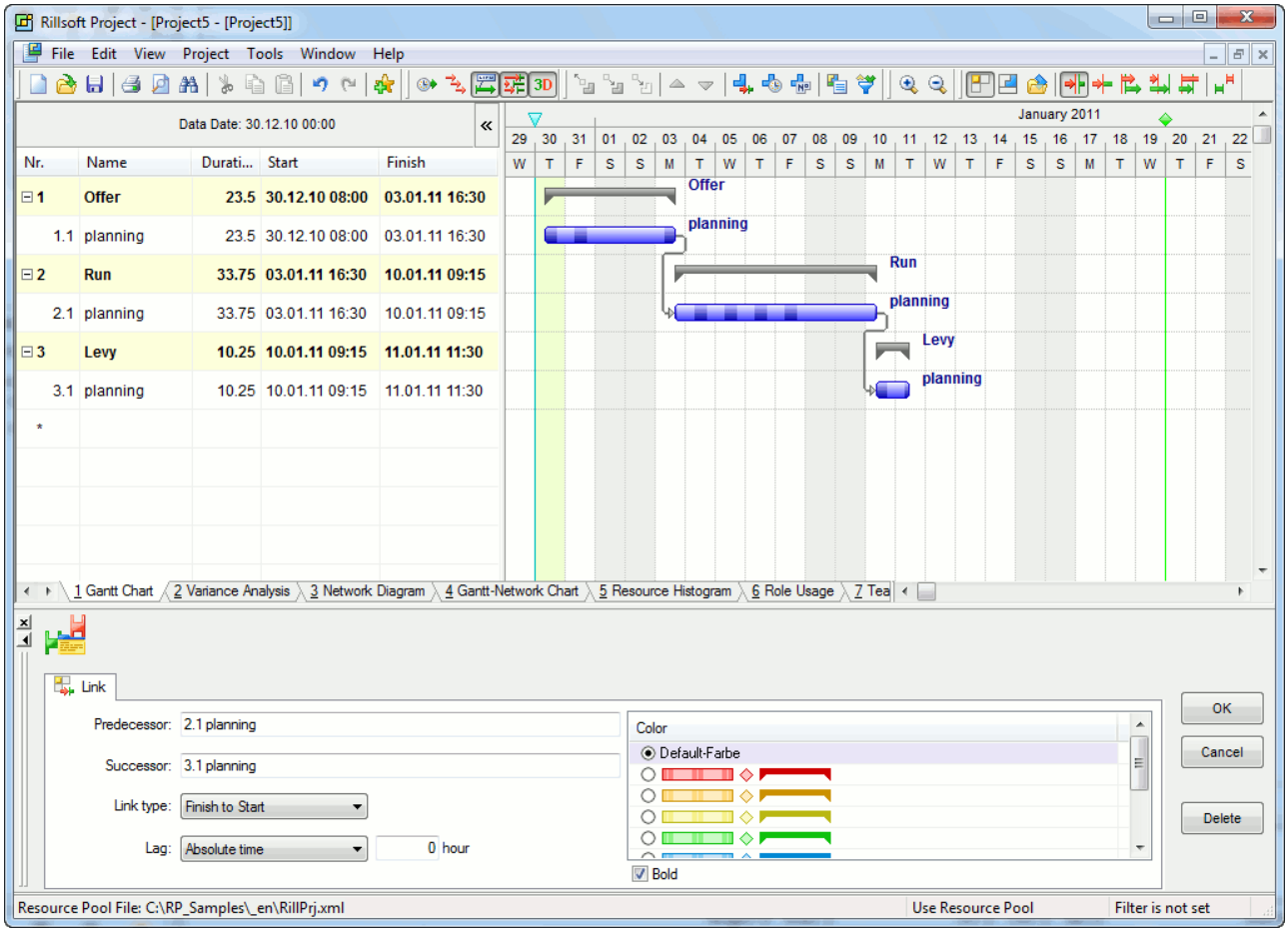


3. Select the activity parameter according to which you want to split activities from the drop down list **Split into**.
   You can choose between the following parameters - **Percentage, Working result, Effort, Duration, Costs**.
   The following activity list shows all activities which can be split into the places / rooms by entering them into the column below the corresponding place / room.

Display of the project schedule before the splitting into places / rooms.



Display of the project schedule after the splitting into places / rooms.



Create subprojects

In order to create a new subproject in the table, do as follows:

1. Choose the icon button **Subproject**  from the **tool bar**.
2. Enter a name for the subproject into the row featuring an asterisk (*).

Alternative 1: You can use the mouse to draw a subproject open in the diagram. This way, start date and finish date as well as activity duration will be defined at the same time.

Alternative 2: You can use the context menu of the diagrams to create subprojects (command **New subproject**).

Insert subprojects from file

In order to insert an existing project as subproject, do as follows:

1. Choose the icon button **Subproject from file**  from the **tool bar**.
2. Enter a name for the subproject into the row featuring an asterisk (*).
3. Press the enter key.
   The dialogue box **Open** appears.
4. Select the project you want to insert.
5. Click on the button **Open**.

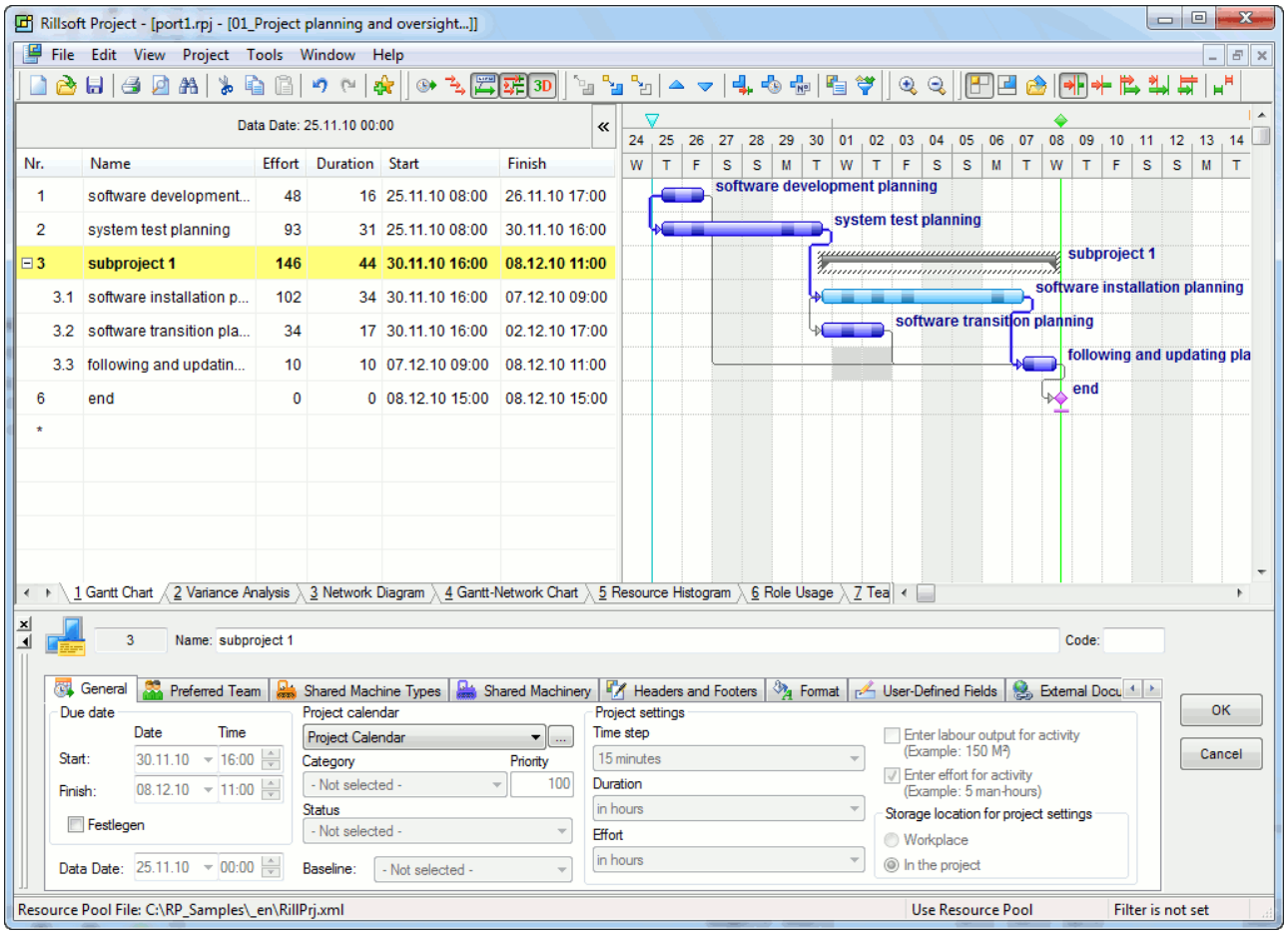
Alternative 1: You can use the mouse to draw a subproject open in the diagram. This way, start date and finish date as well as activity duration will be defined at the same time.

Alternative 2: You can use the context menu of the diagrams to create subprojects (command **New subproject**).

Edit subprojects

In order to edit a parameter of an existing subproject, do as follows:

1. In the diagram, click on the subproject whose parameter you want to edit.



2. Activate the required tab in the window Properties and make the changes.
3. Click on the button **OK**.

Alternative 1: You may make the changes to the most important subproject parameter directly in the table of the bar diagram.

Alternative 2: You may use the mouse to shift the subproject in the diagram so as to change its time parameters or duration.

Alternative 3: You can use the context menu of the subproject to quickly make vital changes to it.

Delete subprojects

In order to delete an existing subproject, do as follows:

1. Rightclick on the subproject you want to delete.
2. From the context menu, choose the command **Delete**.

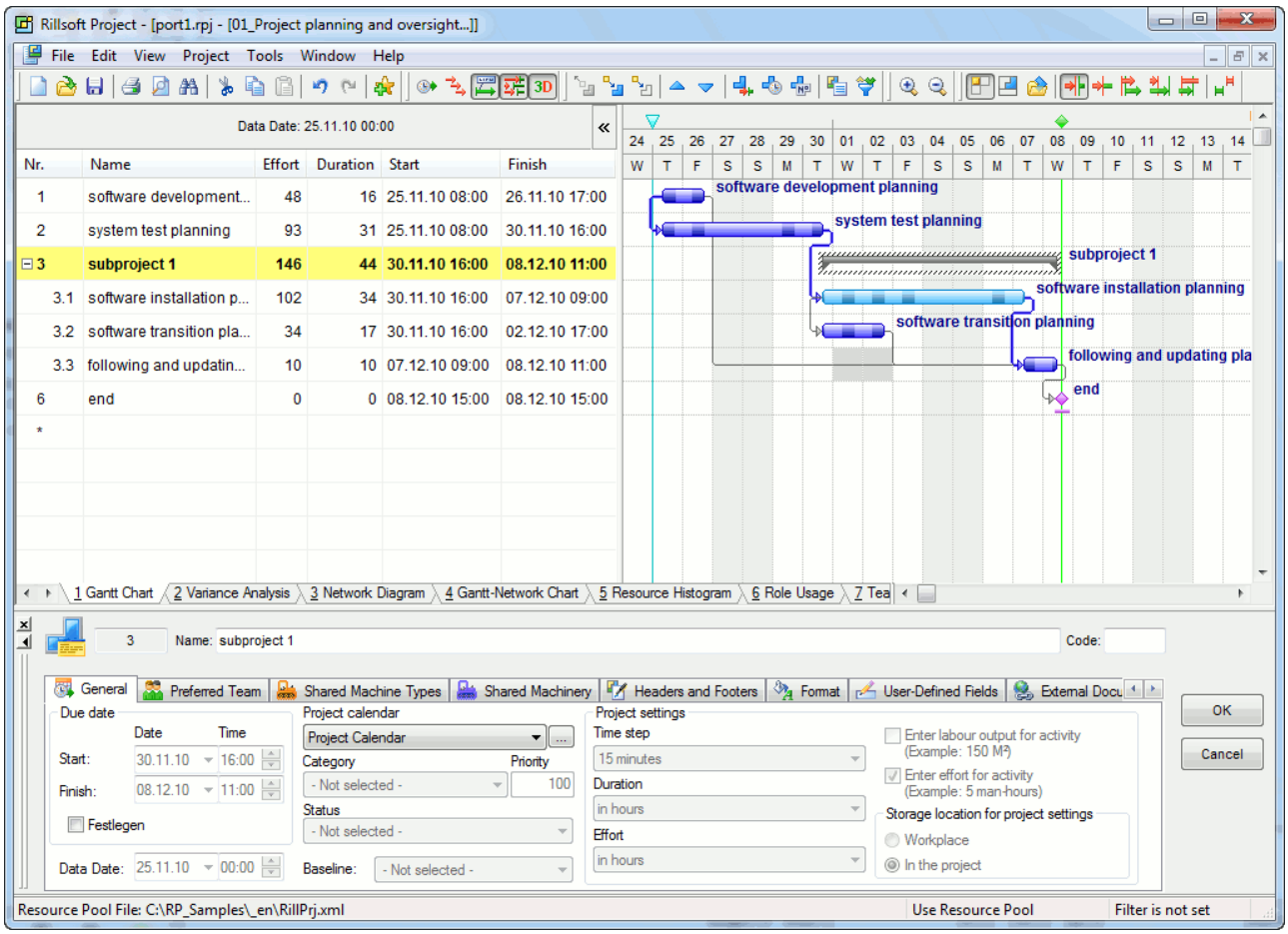
Alternatively: You can quickly delete an existing subproject by clicking on the blank space in the diagram with the right mouse button pressed down and striking out the subproject.

Enter subproject properties

In order to define the properties of a subproject, do as follows:

1. Mark the subproject whose properties you want to enter.

   The window **Object properties** opens.



2. Enter the subproject name in the field **Name**.
3. Enter the subproject code in the field **Code**.
4. Mark the check box **Define** if you don't want to have the **start** and **finish date** of the subproject automatically calculated, but want to define it manually instead.
5. Enter the projective start and finish dates of the subproject into the fields **Start**/**Finish** after you have marked the check box Define.
6. In the drop down list **Project calendar**, select the calendar you want to use for the subproject.
7. Click on the button **OK**.

Note:

- The field Baseline indicates whether a baseline is being used or not. This feature is defined in the main project.
- The field Time step indicates which interval is being used. This feature is defined in the main project.

Assign activities to subprojects

In order to assign activities to subprojects, do as follows:

1. Mark the activity bars you want to move into a subproject.
2. From the context menu, select **Shift to subproject** or click on the icon bar with the same name **Shift to subproject**  in the **Project bar**.

   Alternative: You can select the menu item **Project / Shift to subproject**.

   The dialogue box **Select subproject** opens.

3. In the list, doubleclick on the subproject you want to assign activities to.
   The activities will then be moved to the subproject and the numbering of activities subordinated to the subprojects if the WBS code has been set up accordingly.

Take over start and finish dates of a project from activities

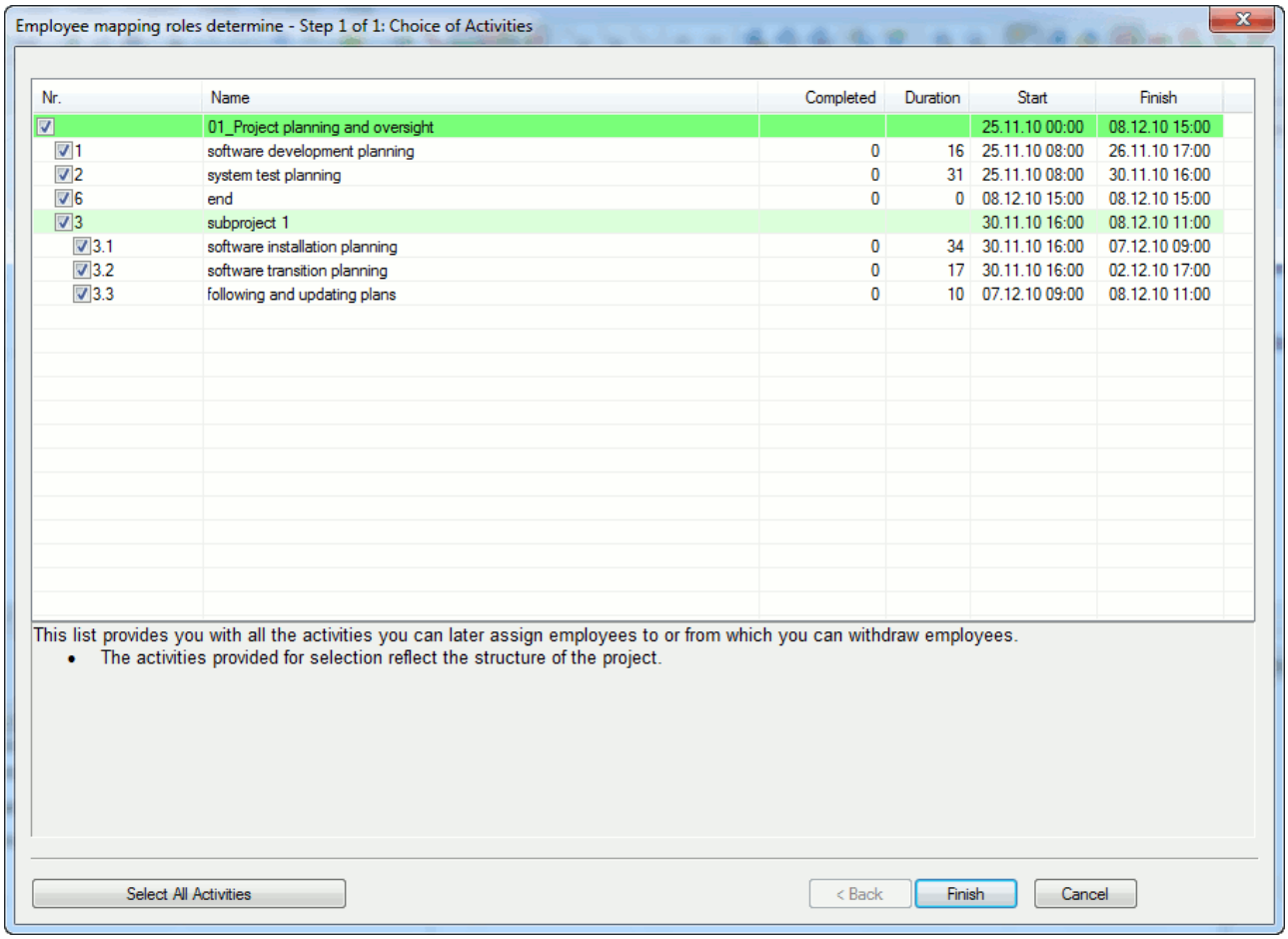
Rillsoft Project allows you to define the start and finish dates of a project during the setup of this project. A project's duration is usually set at a two weeks.
You may use the menu command **Take over project start and finish dates from activities** to recalculate project dates in relation to a start date of the first activity and the finish date of the last activity.

Identify roles from the assignation of employees

If you have assigned real employees to activities without having previously assigend roles, you can identify the required roles from the employee assignation.

In order to identify roles from employee assignation, do as follows:

1. Select the menu item **Project / Identify roles from employee assignation**. The dialogue box **Identify roles from employee assignation - Step 1 of 1: Selection of activities** opens.



   It lists all activities you can select from.

2. Mark the check boxes of the activities in the column number you want to select.
3. Click on the button **Finish**.

Note:

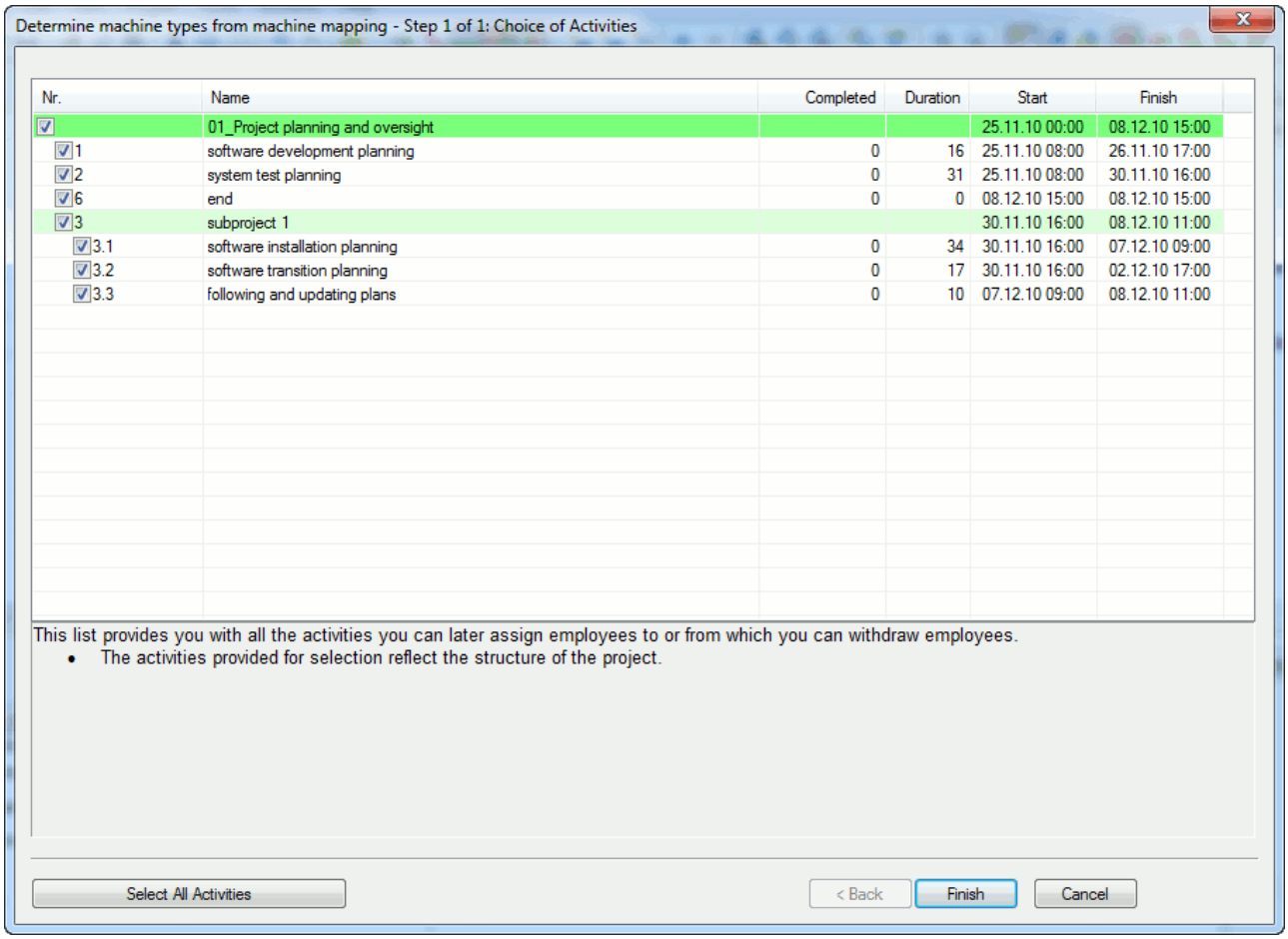
- You can click on the button **Select all activities** to mark all activities at a time.

Identify machine types from machine allocation

If you have allocated real machines to activities without having previously allocated machine types, you can identify the required machine types from the machine allocation.

In order to identify machine types from machine allocation, do as follows:

1. Select the menu item **Project / Identify machine types from machine allocation**. The dialogue box **Identify machine types from machine allocation - Step 1 of 1: Selection of activities** opens.



   It lists all activities you can select from.

2. Mark the check boxes of the activities in the column number you want to select.
3. Click on the button **Finish**.

Note:

- You can click on the button **Select all activities** to mark all activities at a time.

Improve presentation of the project

In order to enhance the readability of a project, do as follows:

1. Unfold / collapse all subprojects
2. Number all activities and subprojects
3. Change order in the bar diagram
4. Create subprojects
5. Add view to favourites

Unfold / collapse all subprojects

In order to unfold all subprojects, select the menu item **Project / Unfold all subprojects**.

In order to collapse all subprojects, select the menu item **Project / Collapse all subprojects**.

Number all activities and subprojects

Every activity is automatically assigned a number during the creation of activities. After their linking or the correction of the schedule, the numbers may no longer be in place.

In order to rearrange the numbers of activities - no matter whether it is a unique number or WBS code - , select the menu item **Project / Numbering**. The activities will then be automatically and unbrokenly numbered.

Change order in the bar diagram

In order to automatically change the order of all activities and subprojects, select one of the following menu items or icon buttons:

 **Project / Sort by links**

 **Project / Sort by start date**

 **Project / Sort by number**

Project / Sort by code

Project / Sort by name

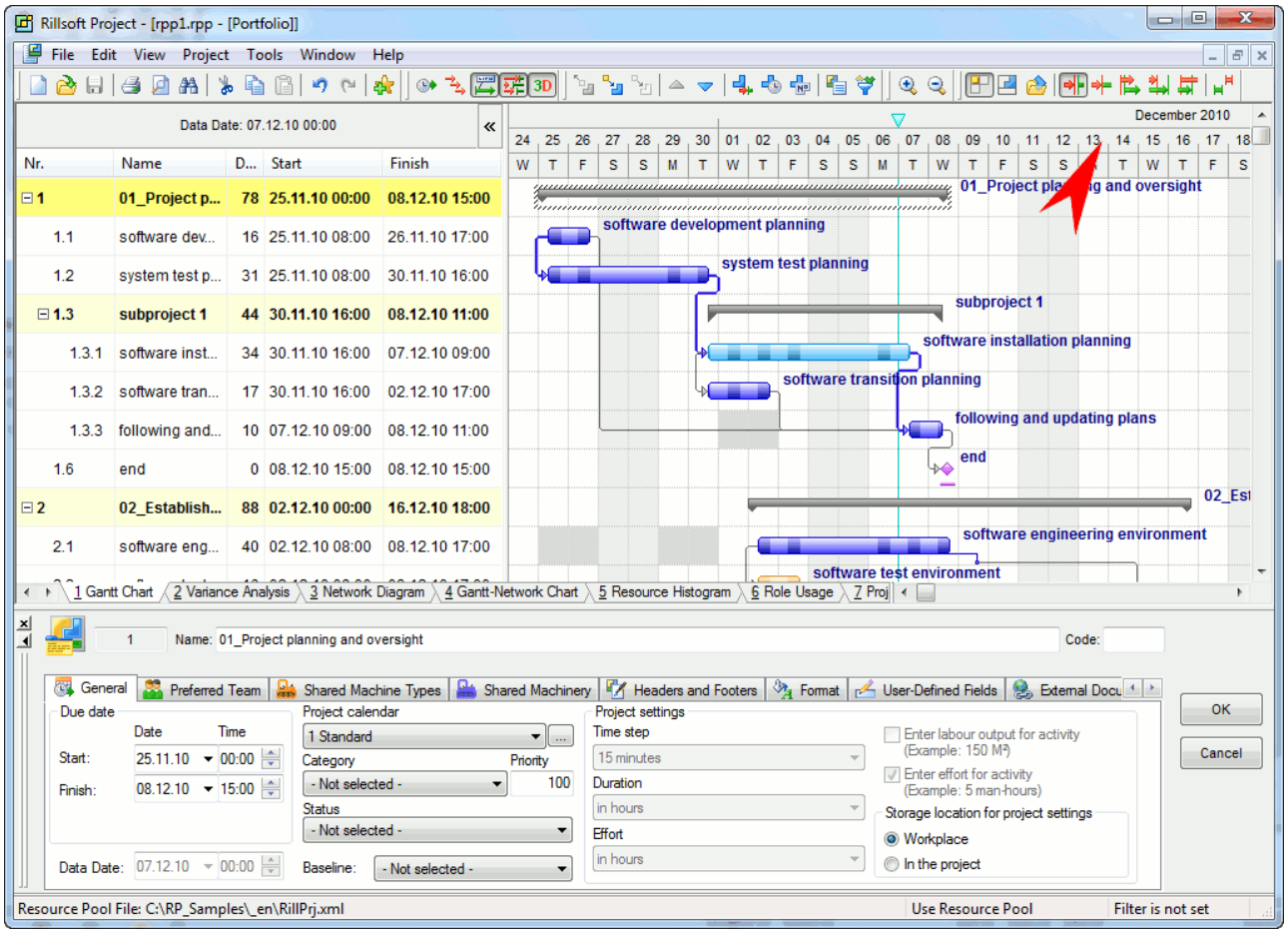
In order to automatically change the order of a single, marked activity or subproject, select one of the following menu items or icon buttons:

 **Project / Shift upwards**

 **Project / Shift downwards**

Adjust timescale

For the display of the project's time, you can shoose between minutes and quarters:
In order to adjust the timescale, rightclick in the title field of the timescale and select one of the display options, for instance Days 1:1.
This is how to adjust the overview of a project schedule of page to your requirements.



Add view to favourites

You can add the current view with the defined time unit, filter and scroll position of the view to your list of favourites.
This allows for a quick toggling between the views with the defined settings.

In order to add the desired view to the favourites, select the menu item **Edit / Add view to favourites**.

Optimise a project

The purpose of the optimisation of a project is to obtain a project schedule that meets a predefined deadline and which makes optimal use of resources.

In order to optimise a project, go to the menu item **Project / Optimise resource utilization**.

Note:

- You can use the check box **Fix** in the window Activity properties (tab **General**, field **Due date**) to ensure that the due date of the activity remains unchanged during optimisation.
- The optimisation process takes the fixed dates of the subprojects into account.
- The command **Optimise resource utilization** in the context menu of the subproject can be used to optimise selected subprojects only.
- The optimisation of personnel resources is done along the following command structure: employees -> teams -> roles (explanation: if it includes employees, the optimisation will ignore teams or roles.)

Contingency reserve

The display of the contingency reserve provides an overview about the erliest possible start dates and latest possible finish dates of activities and subprojects in the bar diagram in the event of changes to the project schedule.
In order to activate the view of the contingency reserve, do as follows:

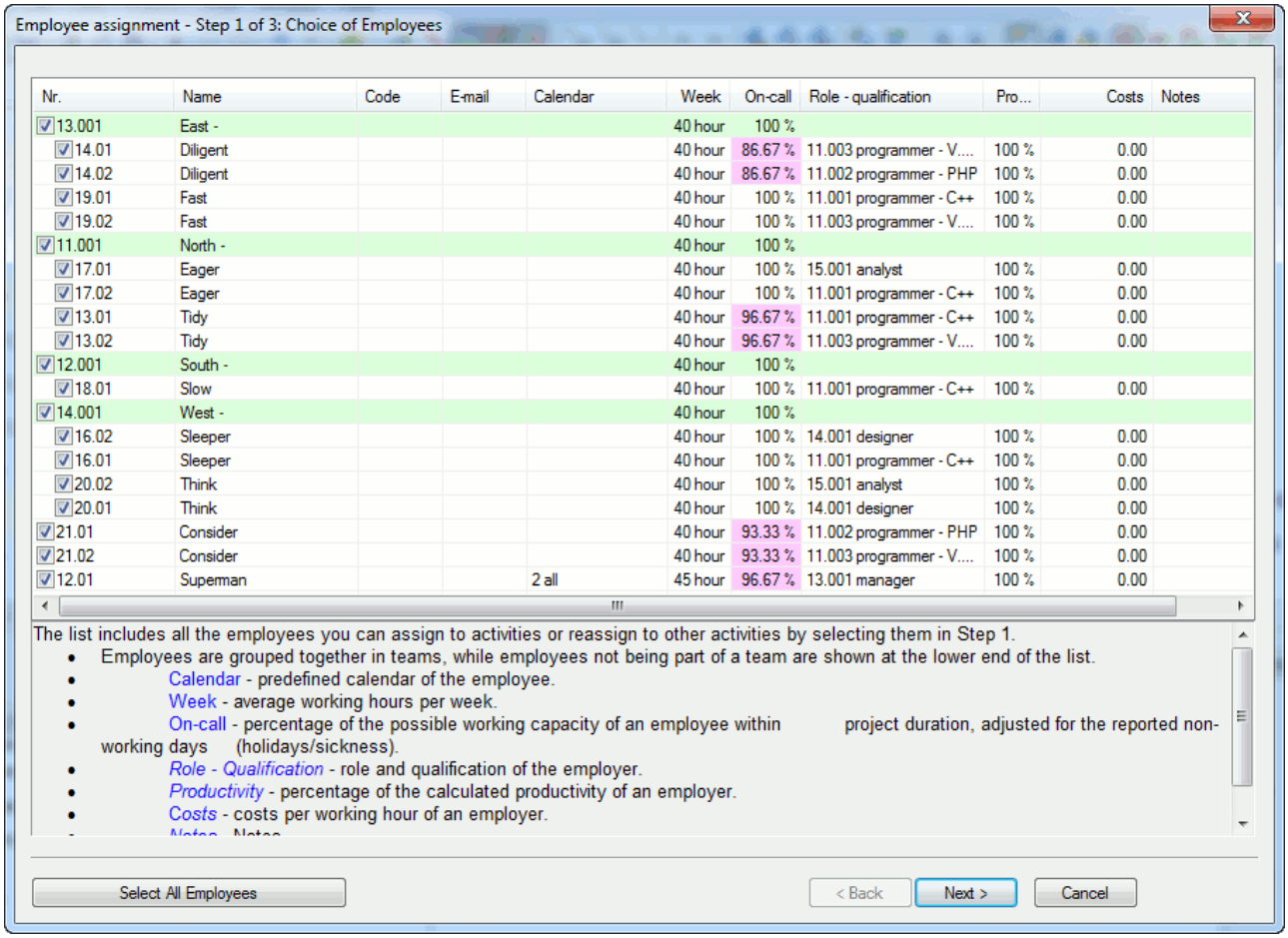
- Select the menu item **Tools / Global settings**.
- In the tab, select **General**.
- Mark the check box **Calculate contingency reserve**.
- Select the menu item **View / View contingency reserve**.

Assign employees to activities

Requirements: In order to assign employees to activities, you need to first assign personnel resources in the form of roles.

In order to semi-automatically assign employees to activities, you do the following:

1. Select the menu item **Project / Assign employees to activities**.
   The dialogue box **Assigning employees - Step 1 of 3: Selection of employees** opens.

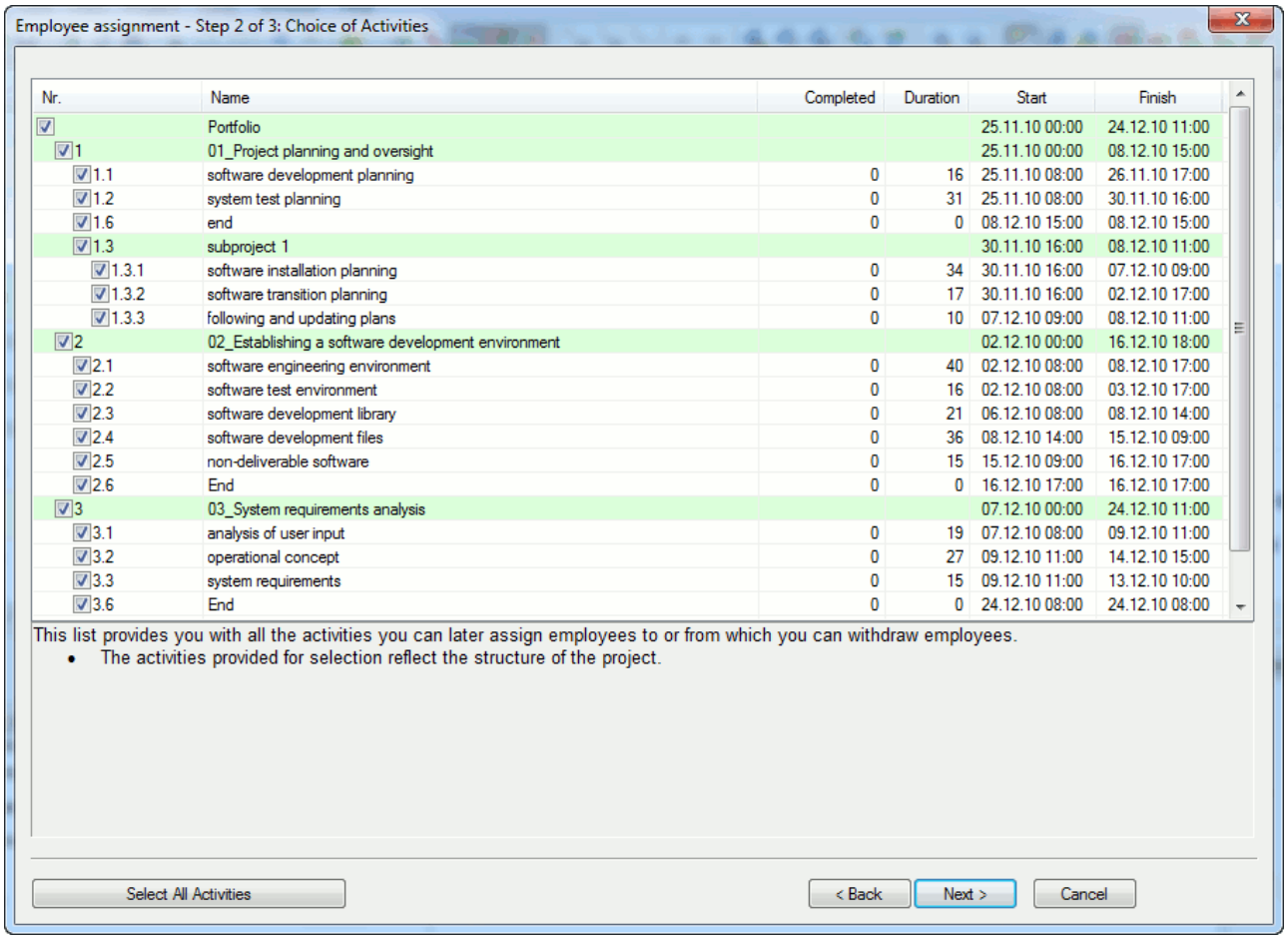


   The list includes all the employees you can assign to activities or reassign to other activities by selecting them in Step 1.

   Employees are grouped together in teams, while employees not being part of a team are shown at the lower end of the list.

   - **Calendar** - predefined calendar of the employee.
   - **Week** - average working hours per week.
   - **On-call** - percentage of the possible working capacity of an employee within project duration, adjusted for the reported non-working days (holidays/sickness).

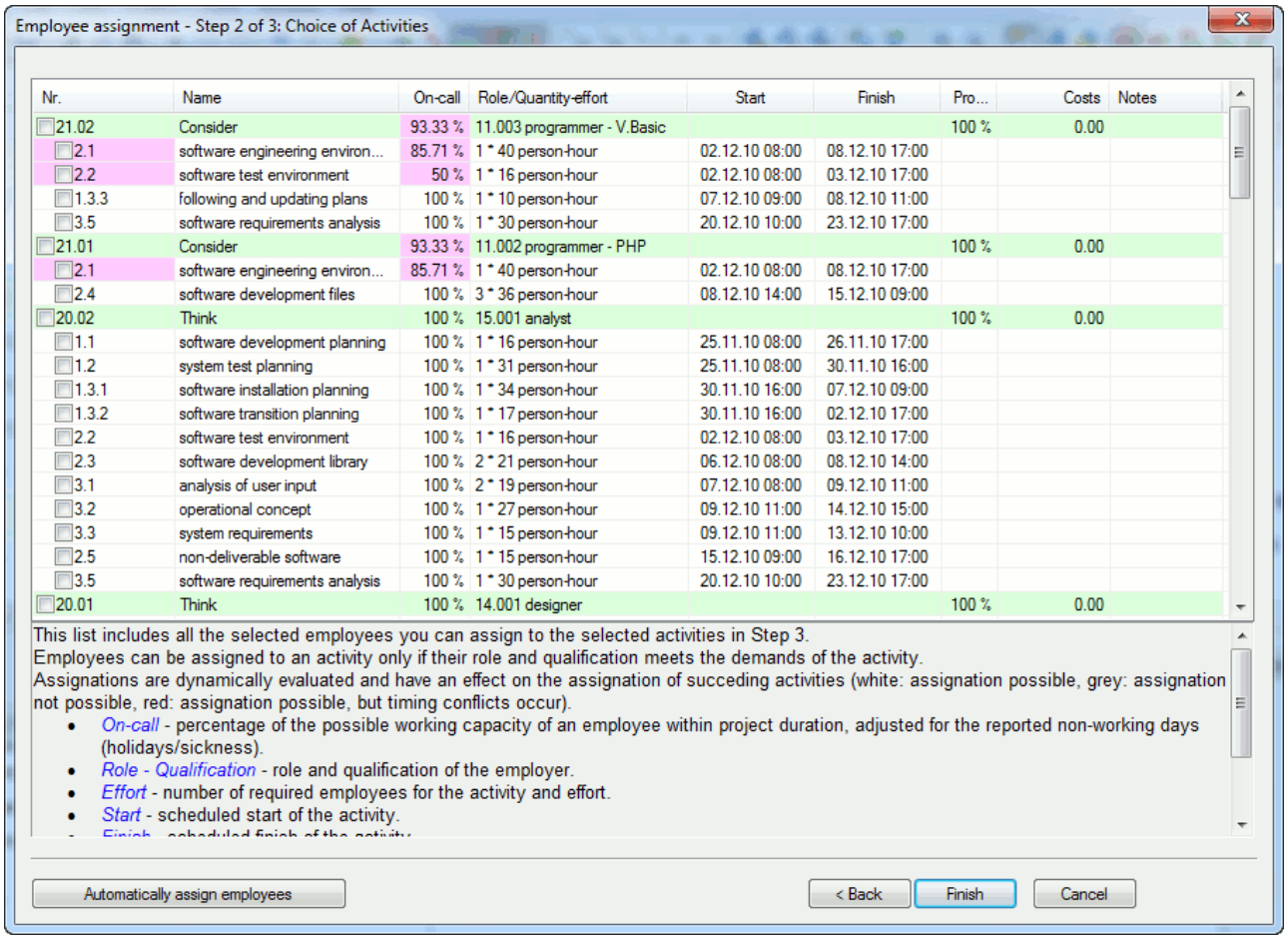
2. Click the check boxes of the employees you would like to assign to activities in the column **No.**.
   You may also click on the button **Select all employees**.
3. Click on the button **Continue**.
   The dialogue box **Assigning employees - Step 2 of 3: Selection of activities** opens.



This list provides you with all the activities you can later assign employees to.

- The activities provided for selection reflect the structure of the project.

4. Click on the check boxes for the activities to whom you want to assign employees. You may also click on the button **Select all employees**.
5. Click on the button **Continue**.
   The dialogue box **Assigning employees - Step 3 of 3: Assigning employees to activities** opens.



This list includes all the selected employees you can assign to the selected activities in Step 3.

Employees can be assigned to an activity if their role and qualification meets the demands of the activity.

Assignations are automatically evaluated and have an effect on succeding activities (white: assignation possible, grey: assignation not possible as already covered by an employee, red: assignation possible, but timing conflicts occur).

- **On-call** - percentage of the possible working capacity of an employee within activity duration, adjusted for the reported non-working days (holidays/sickness).
- **Role** - role of the employee.
- **Effort** - number of required employees for the activity and effort.
- **Start** - scheduled start of the activity.
- **Finish** - scheduled finish of the activity.

6. Click on the check box for the activity you want to assign to an employee (for instance, because the employee can be on-call for 100% of the total activity duration). Assignation options are dynamically adjusted.

   Note: When assigning, we recommend you using the following strategy to avoid overload of resources: first assign activities to employees who can cover activities at 100% (column **On-call**) and productivity at 100%.

7. Repeat Step 6 if necessary.
   You may also click on the button **Assign employees automatically**.
8. Click on the button **Finish**.

Important! Possible conflicts and overloads are indicated in red, and there is no automatic assignation.

Save project

In order to save a project, select the menu item **File / Save** or **File / Save as …**.

Note:

- Alternatively, you can also save a project in XML format. For this, select the menu item **File / Export / XML for web**.
  As **File type** mark the format **Webproject (*.xml)**.

Save project as template

In order to save a project **as template**, select the menu item **File / Save as template**.

Note:

- We recommend you removing all employees from the project by selecting the menu item **Project / Remove employees from activities**.
- You can create a directory for your templates by selecting the menu item **Tools / Global settings / Directory** in the field **Templates**.

Import

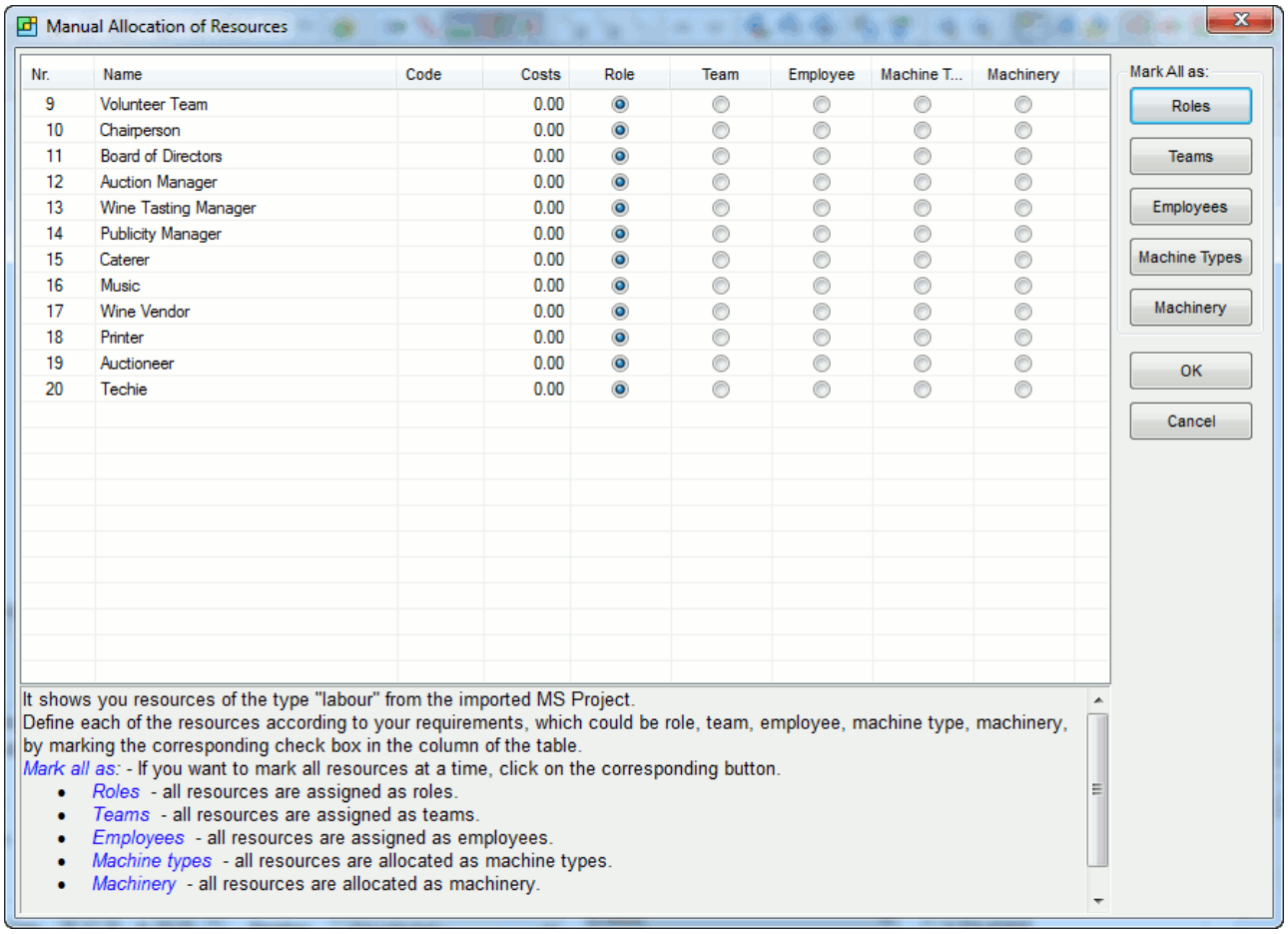
In order to import a project, select the menu item **File / Import**.

- **MS Project XML** allows to import from MS Projects that used to be saved as XML files.
- **Text file in CSV format** allows to import simple scheduling data, such as about the structure of a project, name, start dates and end dates, by way of CSV standard.
- **XML for web** allows to import XML files that used to be saved via the the menu item **File / Export**.
- **GAEB** allows to import from tenders in GAEB Format 90, GAEB 2000 and GAEB DA XML.
- **Plümecke – Pricing construction** allows to import the following files:
  Project structure
  Activities, their effort and duration
  Material
  Machine types

Import from MS Project XML

In order to import from MS Project XML, do as follows:

1. Save a project as XML file by means of MS Project by selecting in the MS Project software the menu item **File / Save as** and setting the file type the in the appearing dialogue **File type** to **XML format (*.xml)**.
2. In Rillsoft Project, select the menu item **File / Import / MS Project XML**.



It shows you resources of the type "labour" from the imported MS Project.

3. Define each of the resources according to your requirements, which could be role, team, employee, machine type, machinery, by marking the corresponding check box in the column of the table.
   Mark all as: - If you want to mark all resources at a time, click on the corresponding button.
   Roles - all resources are assigned as roles.
   Teams - all resources are assigned as teams.
   Employees - all resources are assigned as employees.
   Machine types - all resources are assigned as machine types.
   Machinery - all resources are assigned as machinery.
4. Click on the button **OK**.

Import text file CSV format

From the text file, you can import the project structure, name of tasks, and their start dates and finish dates to Rillsoft Project.

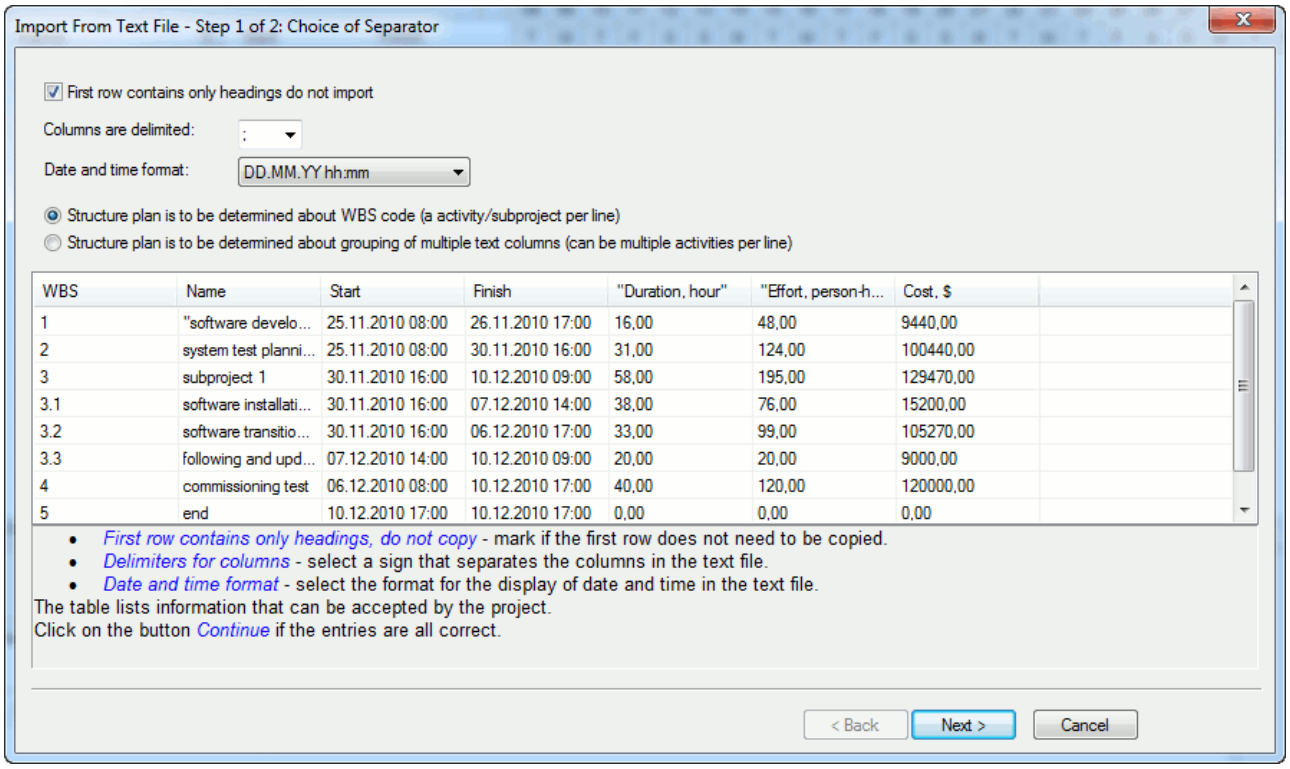
Sample of a text file:

WBS;Name;Start;Finish;Duration, hrs.;Effort, EH;Costs, €
1;Subproject1;25.08.2008 08:00;05.09.2008 17:00;80,00;200,00;10741,20
1.1;Task1;25.08.2008 08:00;29.08.2008 17:00;40,00;40,00;1520,00
1.2;Task2;28.08.2008 08:00;03.09.2008 17:00;40,00;80,00;3040,00

In order to import a text file as CSV file, do as follows:

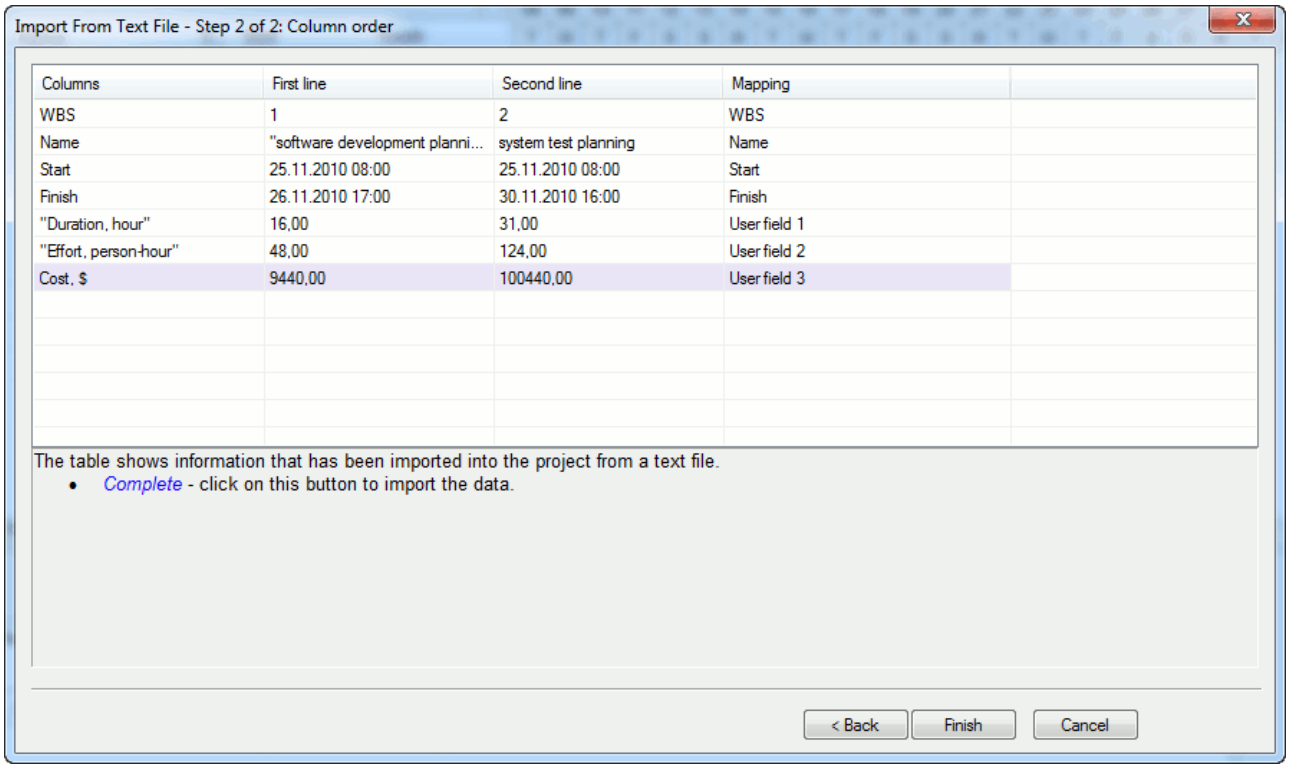
Step 1:

1. Select the menu item **File / Import / Text file in CSV format**.



2. Activate the check box **First row contains only headers, do not import** if the first row should not be imported.
3. In the drop down menu **Separator for columns**, select the separator you want to use to separate the individual elements from each other.
4. In the drop down menu **Date and time format**, select the format you want to use for the display of date and time format in the text file.
5. The table lists information that can be accepted in the project.
6. Click on the button **Continue**.

Step 2:



1. In the column **Assignation**, select a matching name for the specific property of a product from the drop down menu.
   Normally, the names are connected to the values in the column **Columns**.
2. Click on the button **Finish**.

Export

In order to export a project, select the menu item **File / Export**.

- **MS Project XML** allows you to export to MS Project per XML format.
- **MS Excel** allows you to export to Excel files.
- **XML for Web** allows you to export to XML files.

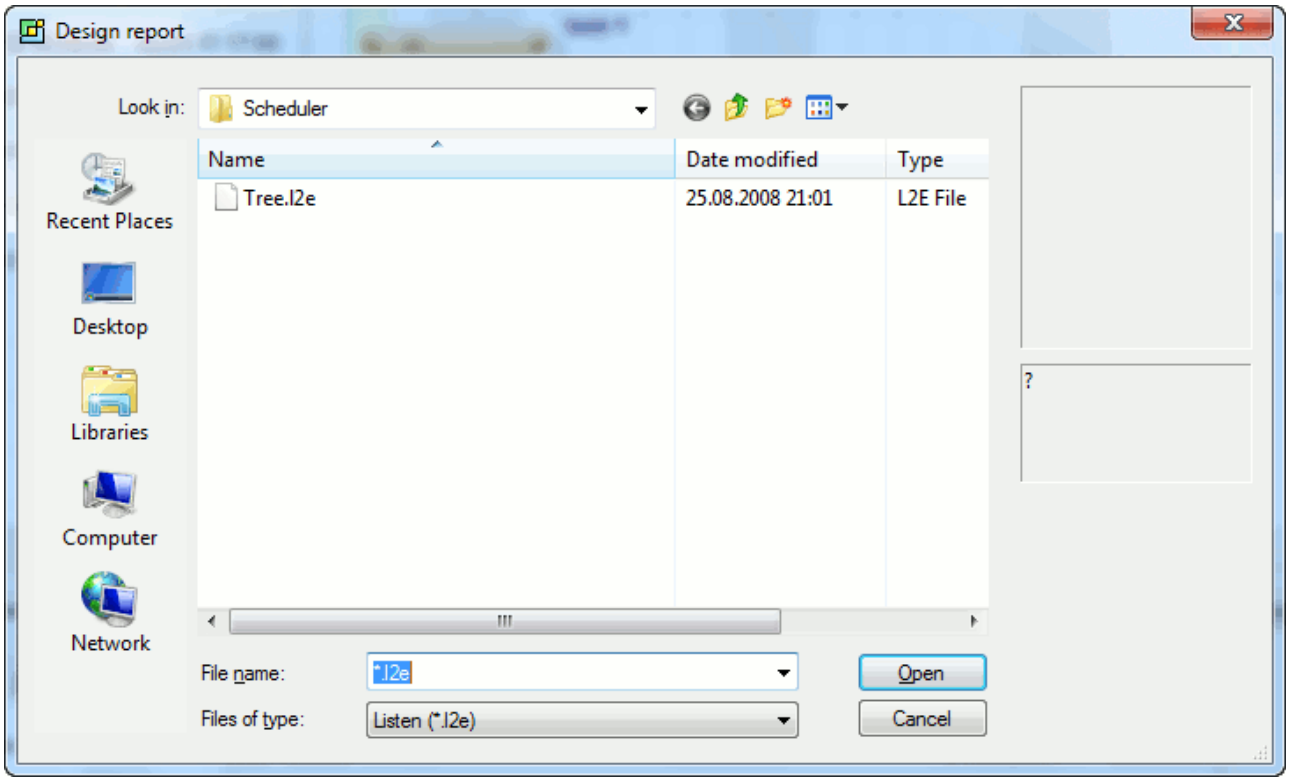
MS Project XML

In order to export a project, select the menu item **File / Export / MS Project XML**.

Export to MS Excel

If your version of Rillsoft Project (up from Standard Version) provides a report generator, you can determine the columns in Excel.

1. Press the button **CTRL** and select the menu item **File / Export / MS Excel**.
2. In the opening dialogue**Design report**, select the file you want to export from the list.



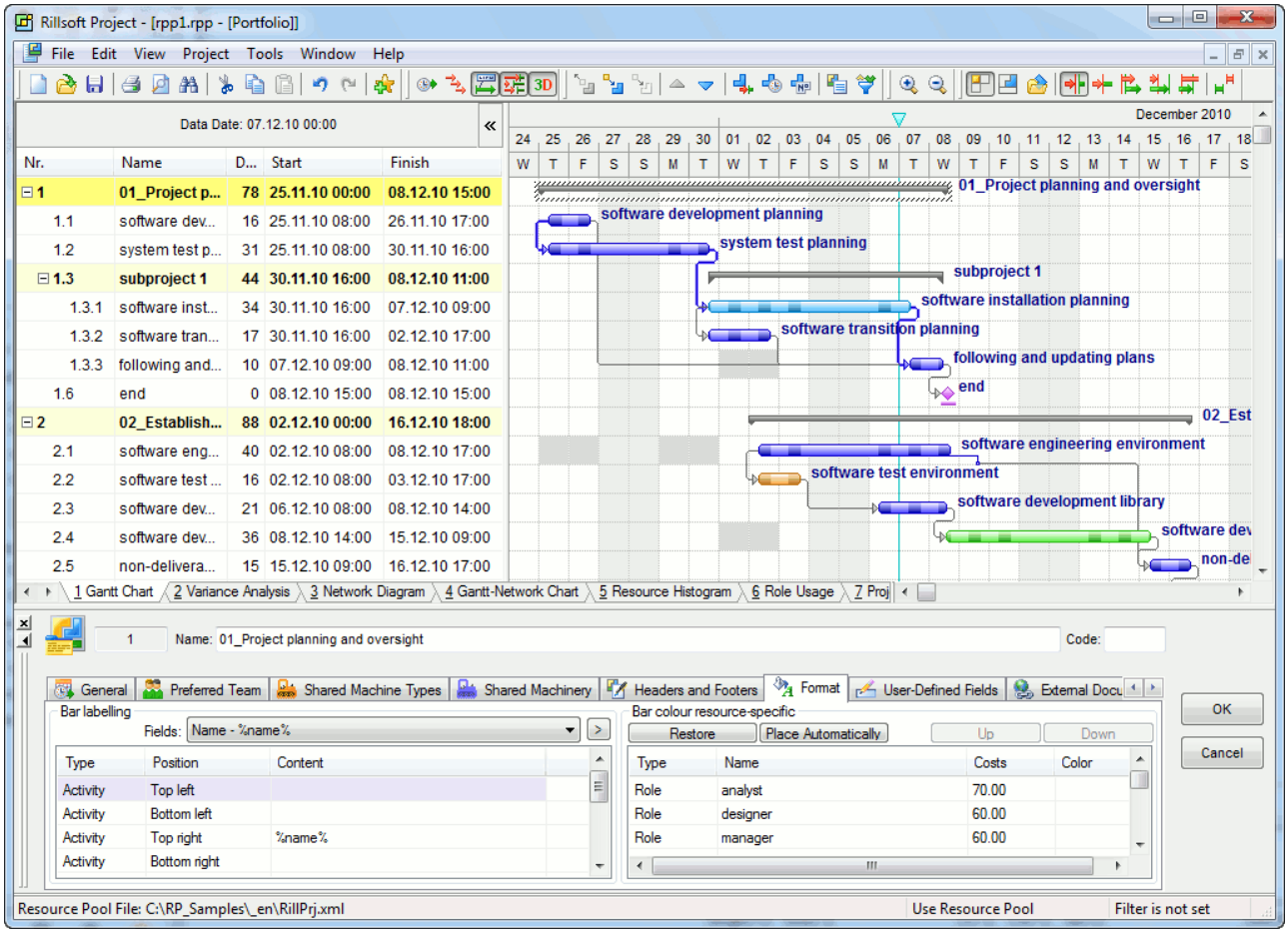
3. Click on the button **Open**.
4. The Report generator opens, where you can define the content and arrangement of the columns.
   The menu item **? / Overview** assists you in the handling of the report generator.

Note: Further information in the Reporting help menu.

Project portfolio

You can use the project portfolio to display several projects of the company at a time.

You can create a new project portfolio or open an existing one.



Only projects which commonly use a resource pool can be included in the project portfolio.

In the project portfolio, you can define the order of projects.

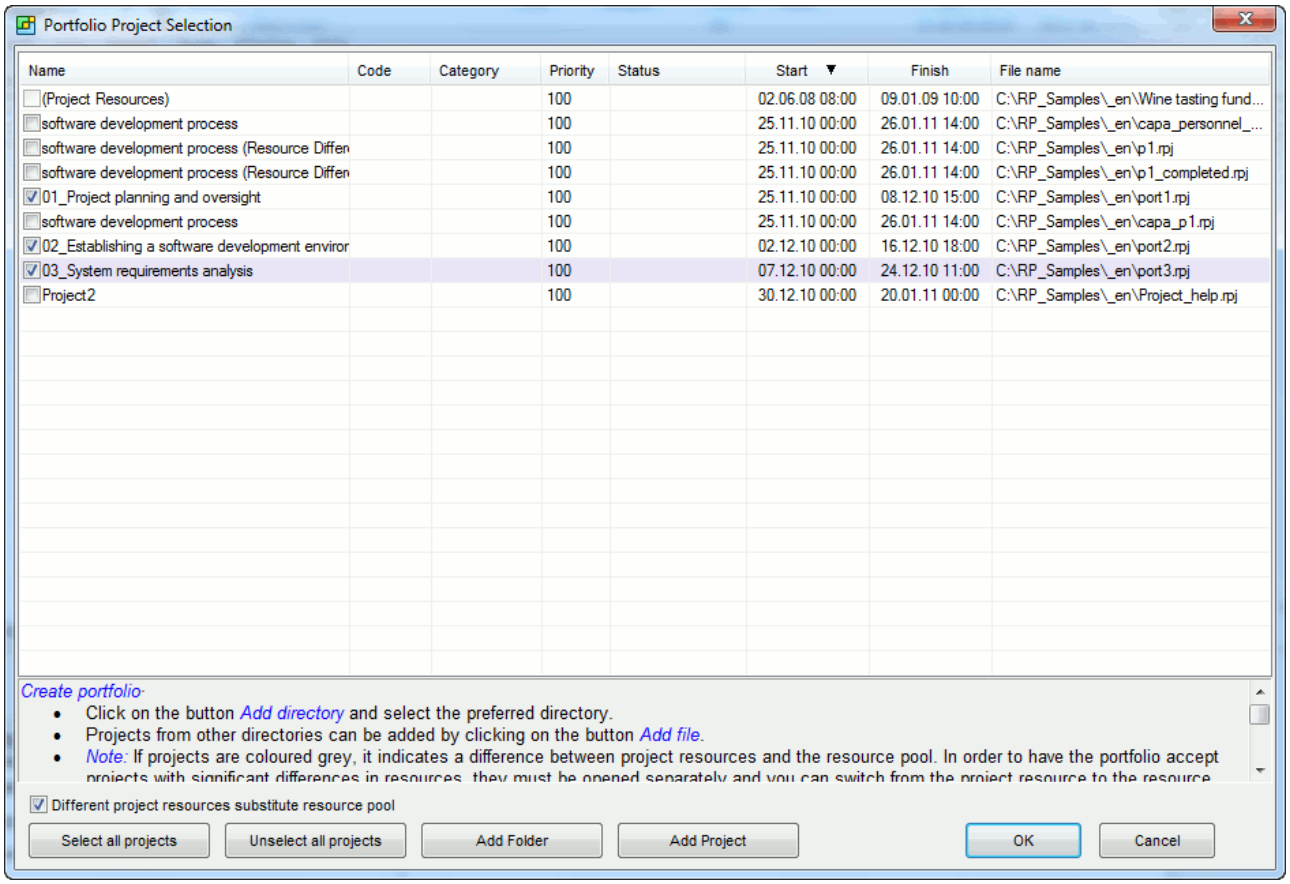
All views **from the bar diagram to the break-even chart** are available for the project portfolio.
In the project portfolio, you can run all the activities similar to a conventional project, that is, you can create activities, allocate resources, correct processes or store outputs.

New project portfolio

In order to open a new project portfolio, do as follows:

1. Select the menu item **File / Open new project portfolio**.
2. The dialogue window **Project selection for portfolio** appears.
3. Click on the button **Add a directory**.
4. Select the directory which contains the required projects.
5. Click on the button **OK**.

Note the dialogue window **Project selection for portfolio**.
It provides the projects that can be selected for the project portfolio.



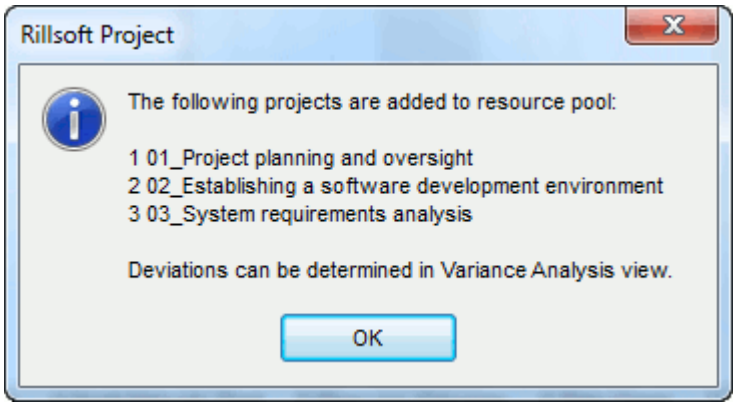
Note: Only projects that share a common resource pool can be included in the project portfolio. That is, projects 03 and 04 vary in resources and are not marked, because thes use deviating project resources.

If projects are coloured grey, it indicates a difference between project resources and the resource pool.

Include projects with project resources in the portfolio

Deviating projects being coloured grey can be added to the portfolio in the following way:

- Automatic replacement of project resources.
  The option **Replace deviating project resources by resource pool** updates the project resources by adding the resource pool at every opening of the portfolio.
  The view **Variance analysis** displays the changes in time of the projects.



- Manual switching of project resource to resource pool.
  In order to have the portfolio accept projects with significant differences in resources, they must be opened separately and you can switch from the project resource to the resource pool by help of the menu item **Project / Switch to resource pool**.

Edit portfolio

You can use the following three buttons to do the following:

Select all projects – All projects from the list, that share a common resource pool, are included in the project portfolio.
Add a directory - searches a new directory for projects
Add a file - adds single projects to the list

Select the projects you want to include in the project portfolio.
If you want to enter other projects in the list, click on the appropriate button to add either a directory or file.

The projects shown in the list can be sorted along the following parameters:

- Project name
- Code
- Category
- Priority
- Status
- Start of project
- Finish of project
- File names

The selected order is then accepted by the project portfolio.

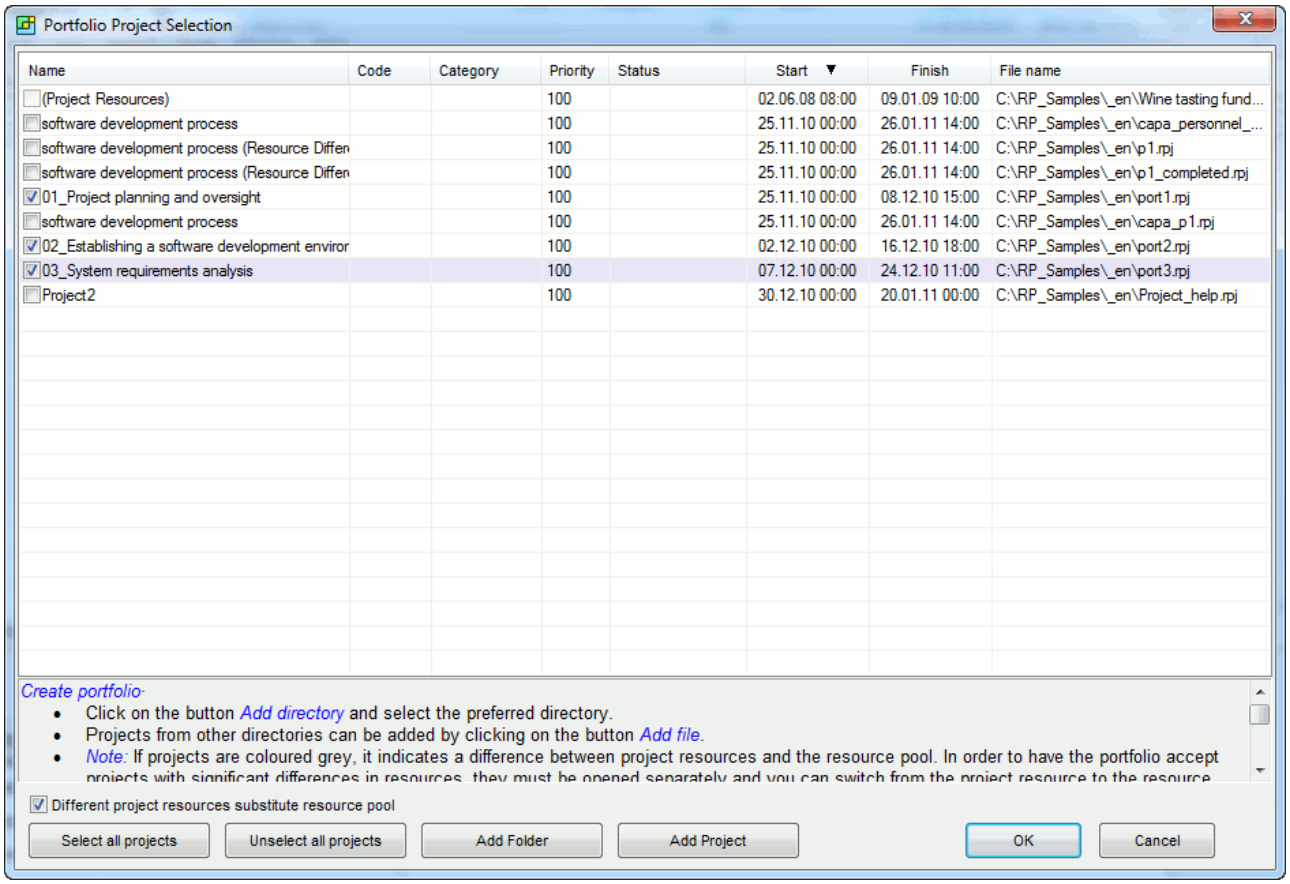
All views **from the bar diagram to the break-even chart** are available for the project portfolio.
In the project portfolio, you can run all the activities similar to a conventional project, that is, you can create activities, allocate resources, correct processes or store outputs.

Open a project portfolio

In order to open a project portfolio, do as follows:

1. Select the menu item **File / Open project portfolio**.
2. The dialogue window **Open** appears.
3. Select the preferred file.
4. Click on the button **OK**.

The dialogue window **Project selection for portfolio** appears.
A list of projects for the project portfolio is shown.



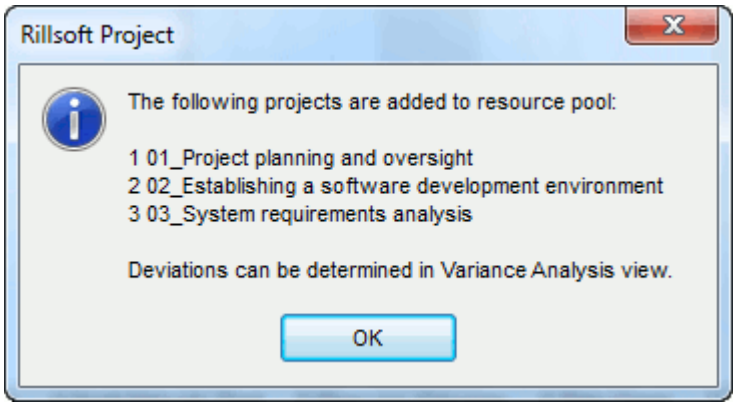
Note: Only projects that share a common resource pool can be included in the project portfolio. That is, projects 03 and 04 vary in resources and are not marked, because thes use deviating project resources.

If projects are coloured grey, it indicates a difference between project resources and the resource pool.

Include projects with project resources in the project portfolio

Deviating projects being coloured grey can be added to the portfolio in the following way:

- Automatic replacement of project resources.
  The option **Replace deviating project resources by resource pool** updates the project resources by adding the resource pool at every opening of the portfolio.
  The view **Variance analysis** displays the changes in time of the projects.



- Manual switching of project resource to resource pool.
  In order to have the portfolio accept projects with significant differences in resources, they must be opened separately and you can switch from the project resource to the resource pool by help of the menu item **Project / Switch to resource pool**.

Edit portfolio

You can use the following three buttons to do the following:

Select all projects – All projects from the list, that share a common resource pool, are included in the project portfolio.
Add a directory - searches a new directory for projects
Add a file - adds single projects to the list

Select the projects you want to include in the project portfolio.
If you want to enter other projects in the list, click on the appropriate button to either add a directory or file.

The projects shown in the list can be sorted along the following parameters:

- Project name
- Code
- Category
- Priority
- Status
- Start of project
- Finish of project
- File names

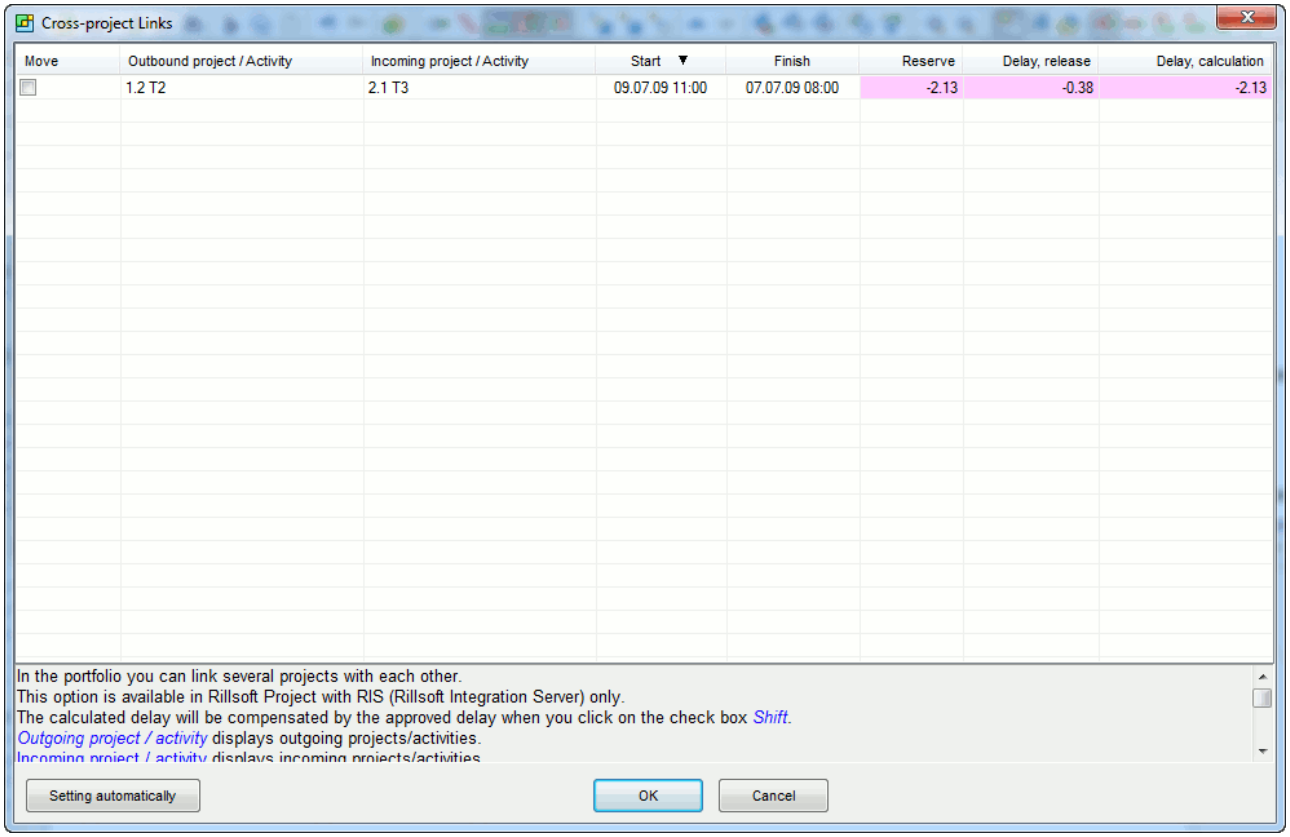
The selected order is then accepted by the project portfolio.

All views **from the bar diagram to the break-even chart** are available for the project portfolio.
In the project portfolio, you can run all the activities similar to a conventional project, that is, you can create activities, allocate resources, correct processes or store outputs.

Cross-project links

In the portfolio you can link several projects with each other.
Important! This function is only included in Rillsoft Project with **RIS (Rillsoft Integration Server)** and links can only be edited in the portfolio.

In cross-project links, succeeding activities are not automatically shifted, but the program sets negative intervals instead.
By help of the menu item **Project/Cross-project links**, you can check these links and obtain detailed information about them, such as occuring delays.
You can choose whether you want to accept only single or all of the changes you have made to these settings.



The following information and options are available:

Shift	The calculated delay will be compensated by the approved delay when you click on the check box.
Outgoing project / activity	Displays outgoing projects/activities.
Incoming project / activity	Displays incoming projects/activities.
Start	Shows, where a link starts.
Finish	Shows, where a link ends.
Reserve	Shows the interval between the outgoing and incoming positions in absolute time.

Delay, Release Displays the value of the released interval.

Delay, Calculation Displays the value of the calculated interval.

Red colouring signals that there is a discrepany between the released and the calculated delay.

Set to automatic

Click this button if all calculated delays should be automatically aligned with the released delays.

Types of links

The following link types are at your disposal:

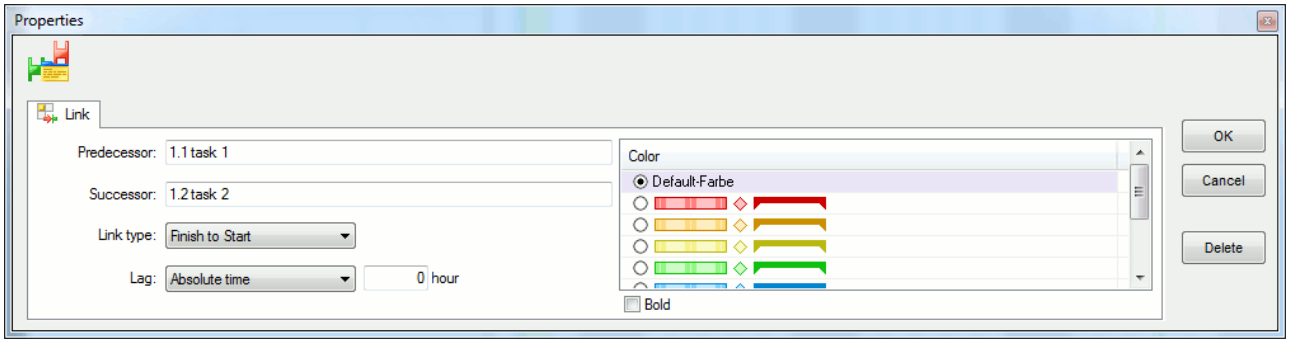
Finish-Start the "from" activity must finish before the "to" activity can start

Start-Start the "from" activity must start before the "to" activity can start

Finish-Finish the "from" activity must finish before the "to" activity can finish

Start-Finish the "from" activity must start before the "to" activity can finish

You can unhide the Properties window of a link by doubleclicking on any link.



Intervals

Intervals can be defined in Project properties in relation to the time unit of the duration (such as hours or days).
Intervals can only be defined in absolute time (estimated duration including non-working time, such as: 10 hours or 2 days).
Intervals can have

1. positive (such as: + 2 hours) or
2. negative (such as: - 50% = overlapping)

signs.

Highlight link

Links can be highlighted by means of colour or boldface.

Create cross-project link

New, cross-project links can be created with Rillsoft Project with RIS in the portfolio only. In order to create a new cross-project link, do as follows:

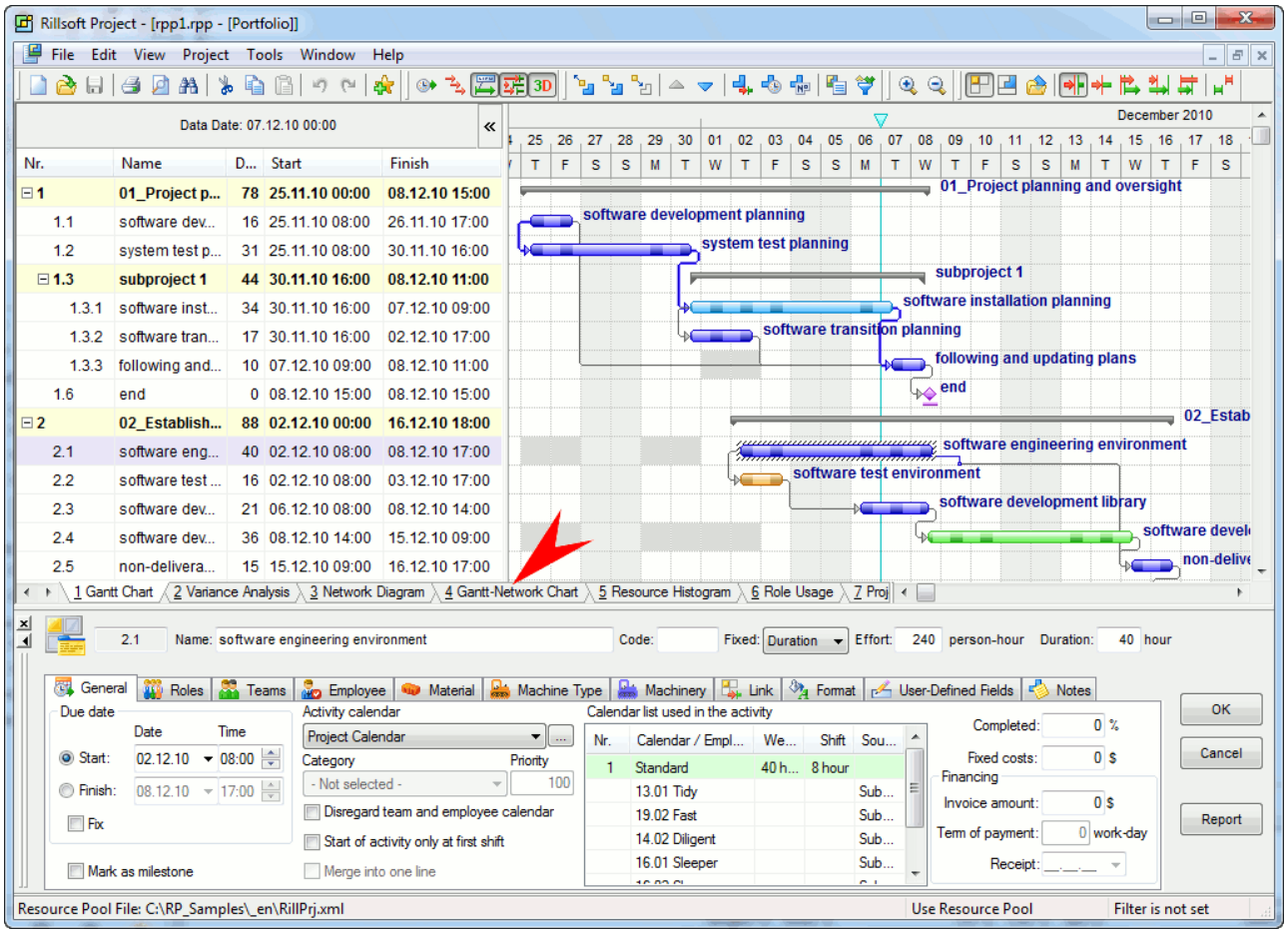
1. Choose the link type via the appropriate icon buttons in the tool bar.
2. Desribe a connection by drawing your mouse from one activity of a project to another activity from another project.
3. Choose the interval type for the link in the Properties window.
4. If wished, enter the delay (positive or negative) by which you want to delay the "to" acticity depending on the selected type of link. If you have entered a delay, click on the button **OK**.

Alternatively: You can link activities in the diagrams via the context menu.

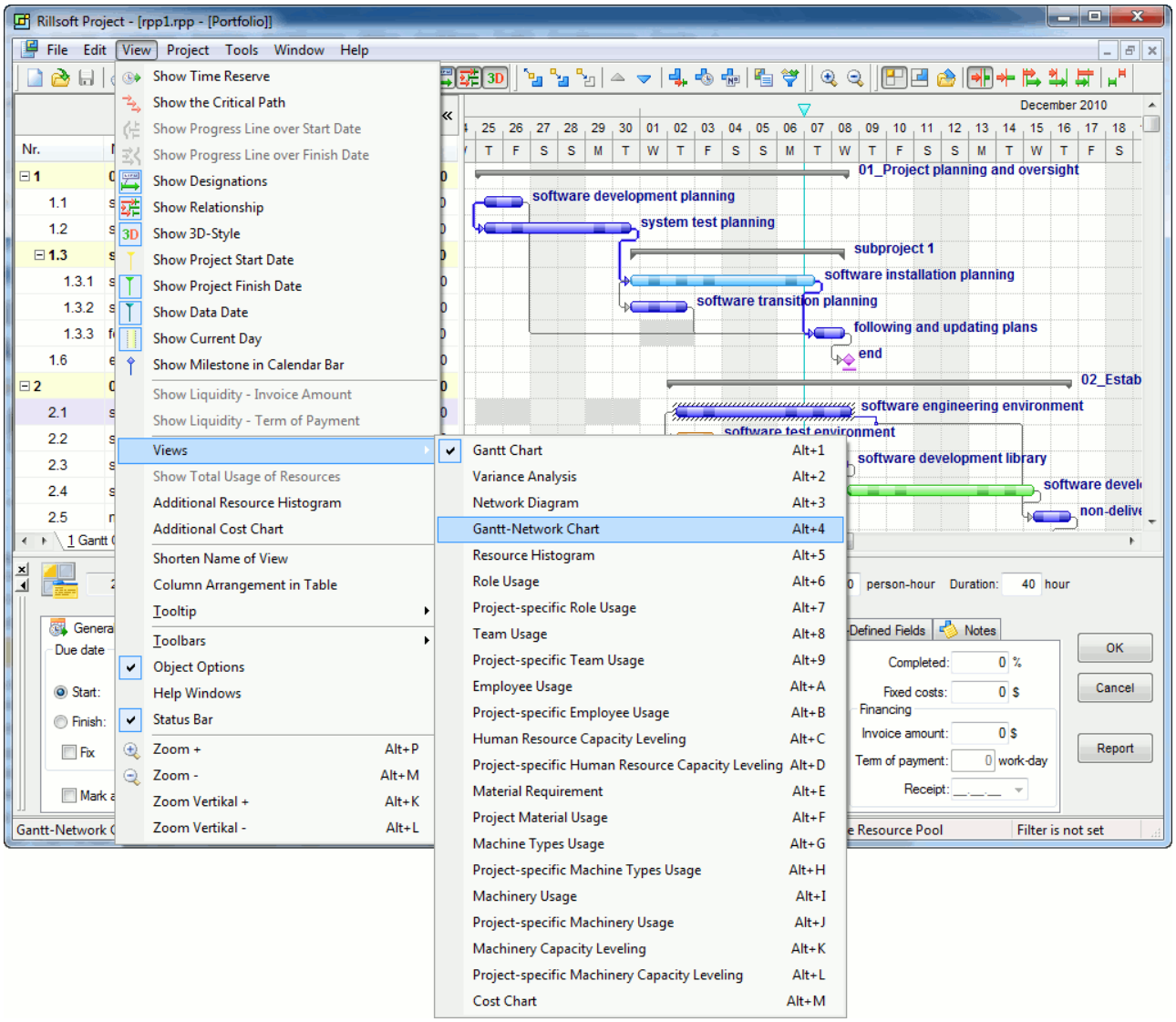
Project views

Rillsoft Project provides about 14 views.
You can toggle between the different views by doing the following:

- Click on the name of a view in the tab Views.



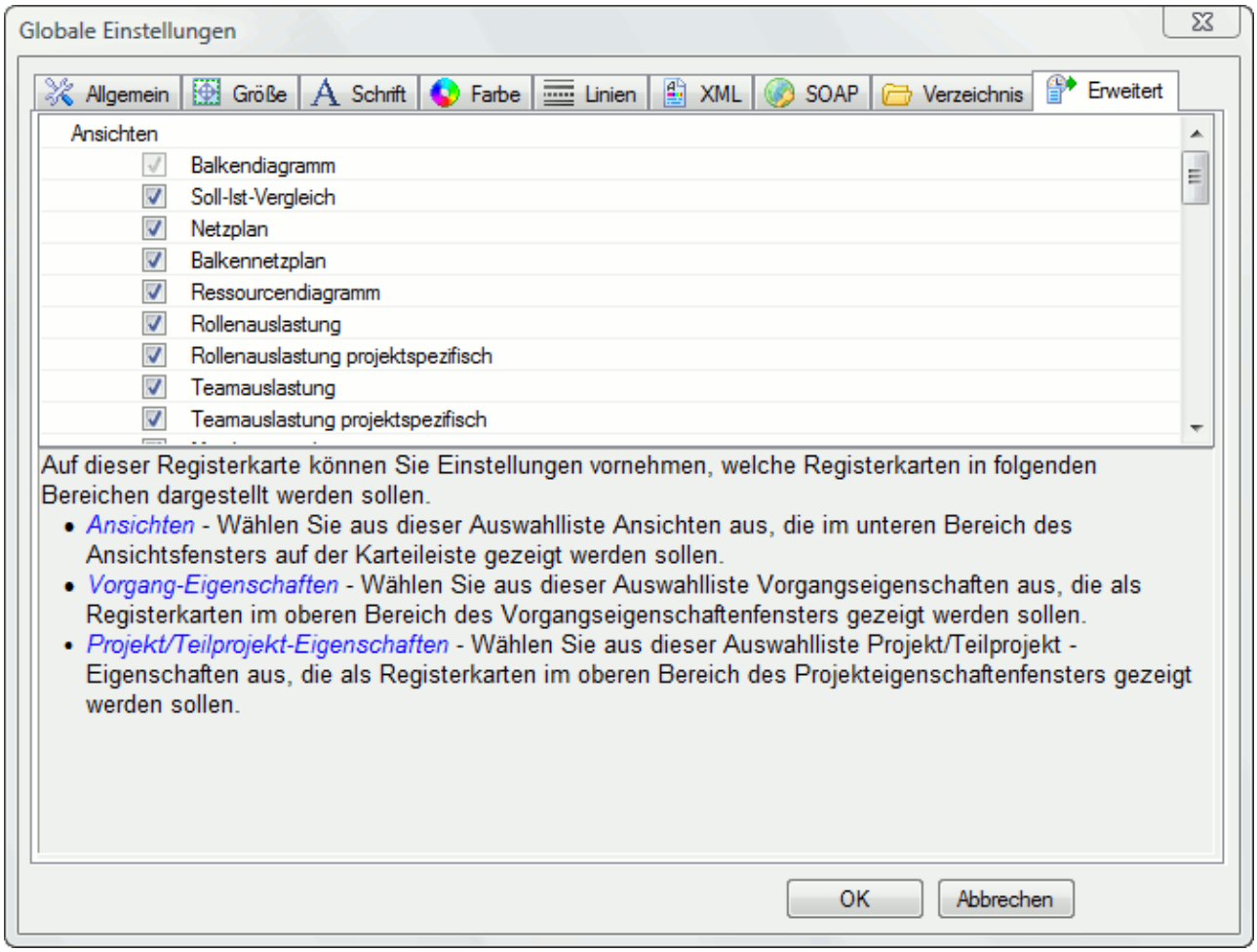
- Select one view in the menu item **View / Views**.



Which of the project views do you want to have on display in the tab

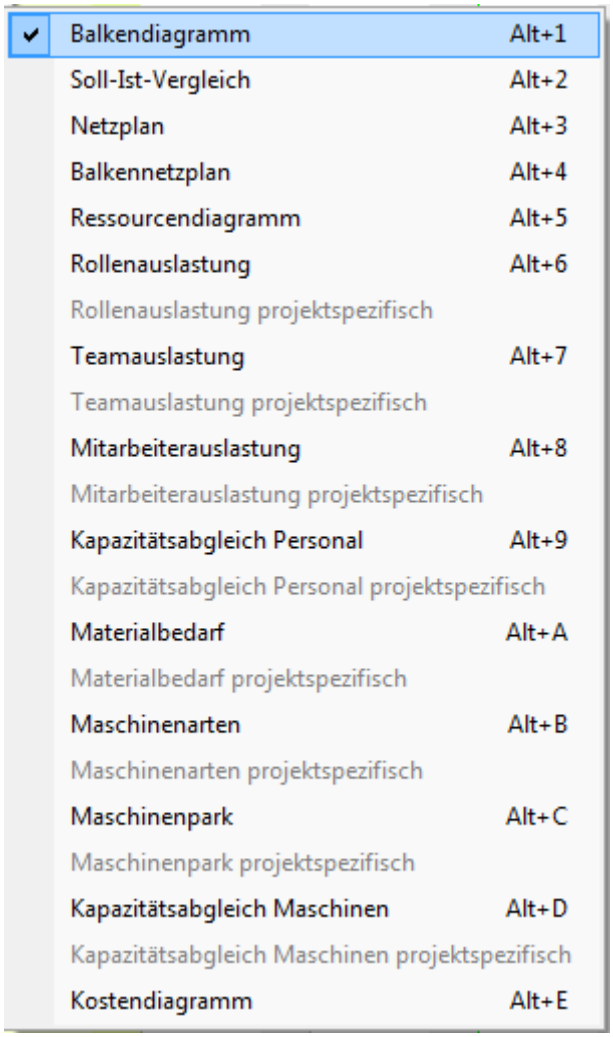
In order to define which of the project views should be shown in the tab, do as follows:

1. Select the menu item **Tools / Global settings / Advanced**.

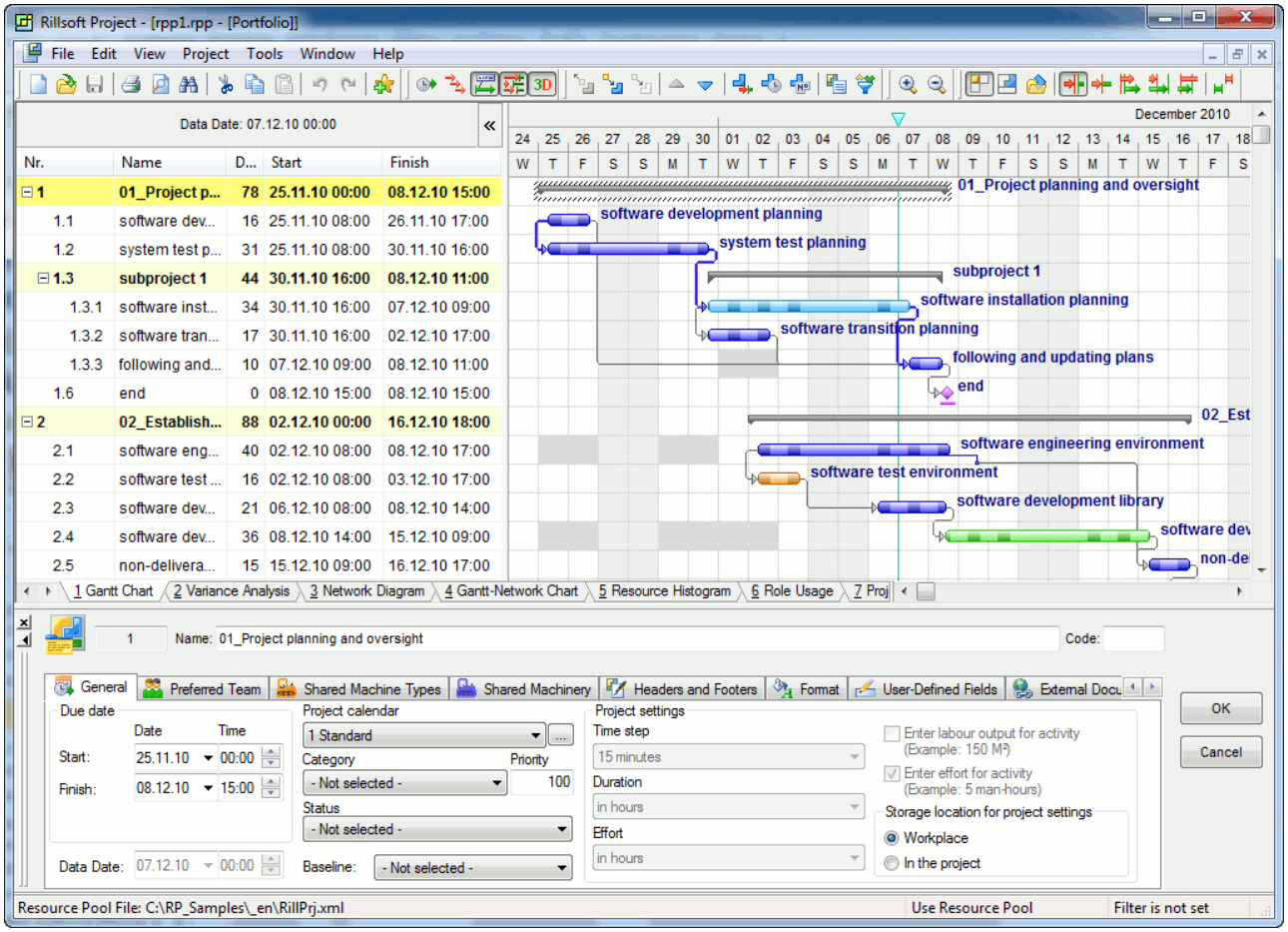


2. Mark the check box of the views you are interested in in the block **Views**.

Alternatively: You can toggle among the different views by means of a shortkey.


Balkendiagramm Alt+1
Soll-Ist-Vergleich Alt+2
Netzplan Alt+3
Balkennetzplan Alt+4
Ressourcendiagramm Alt+5
Rollenauslastung Alt+6
Rollenauslastung projektspezifisch
Teamauslastung Alt+7
Teamauslastung projektspezifisch
Mitarbeiterauslastung Alt+8
Mitarbeiterauslastung projektspezifisch
Kapazitätsabgleich Personal Alt+9
Kapazitätsabgleich Personal projektspezifisch
Materialbedarf Alt+A
Materialbedarf projektspezifisch
Maschinenarten Alt+B
Maschinenarten projektspezifisch
Maschinenpark Alt+C
Maschinenpark projektspezifisch
Kapazitätsabgleich Maschinen Alt+D
Kapazitätsabgleich Maschinen projektspezifisch
Kostendiagramm Alt+E

Gantt chat



Application of Gantt diagrams:

- Visualisation of of the scheduling of a project.
- Visualisation of the structure of a project.
- Visualisation of the contingency reserve.
- Quick access to the properties of activities and subprojects.

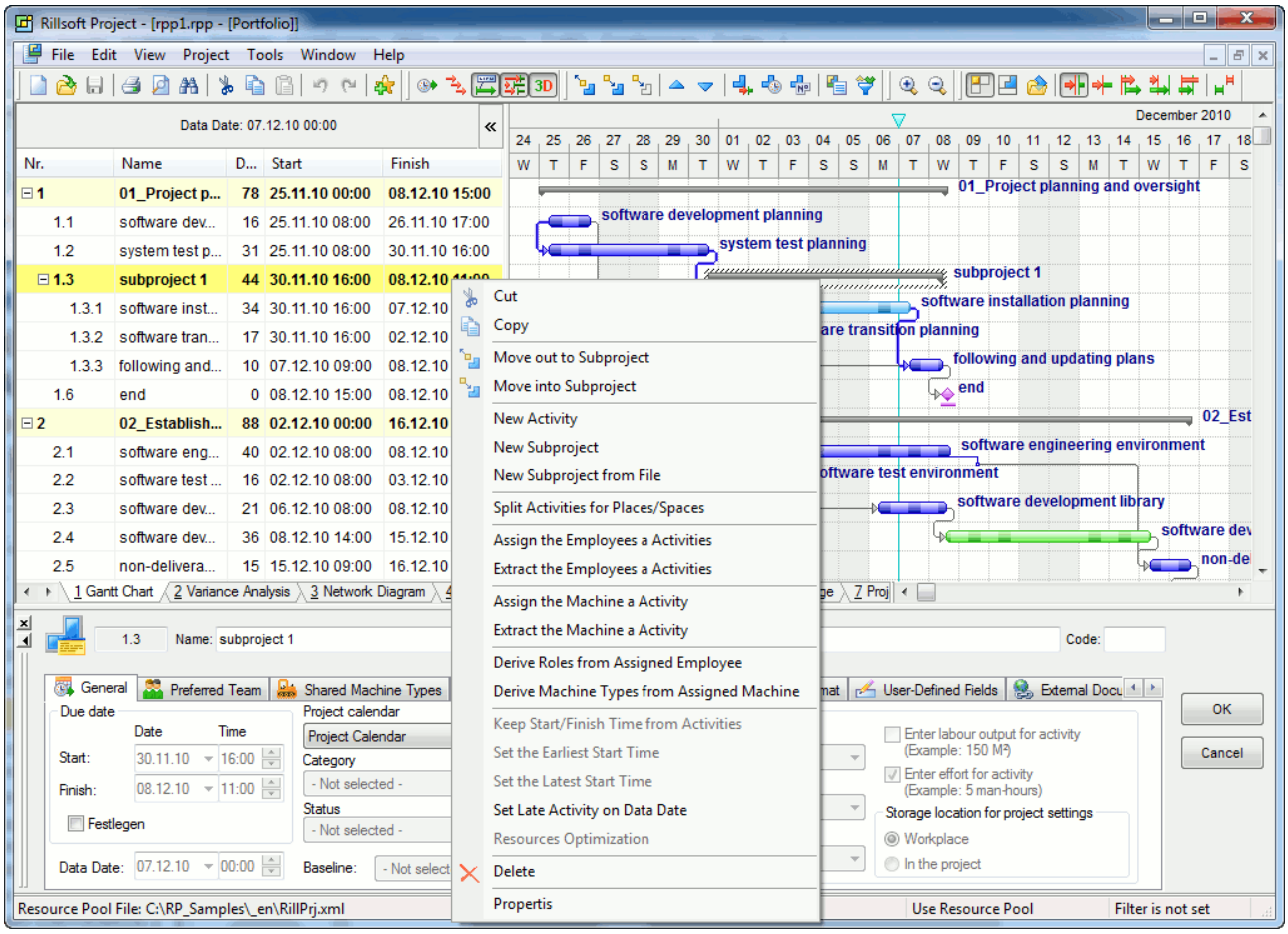
You can use the Gantt diagram for to do the following:

- Create and edit activities.
- Link activities.
- Create and edit subprojects.
- Edit the structure of a project.
- Change the timescale.
- Check contingency reserves.
- Check resource utilization by help of filter settings.

Context menu in the Gantt diagram

For the table of activities

Mark a row (activity or subproject) in the table of activities.
Once you have marked an activity, you can do as follows:



- **Cut** – cut the marked activity
- **Copy** – copy the marked activity
- **Fit "from" activities to the latest possible start dates** – shift all activities that are scheduled for an earlier time than the marked activity to the latest possible start date
- **Fit "to" activities to the earliest possible start dates** – shift all activities that are scheduled for a later time than the marked activity to the earliest possible start date
- **Shift into subproject** – shift the marked activity into a subproject
- **Shift from subproject** – shift the marked activity from a subproject
- **Completed** – enter the percentage of completion of a marked activity
- **Split** – split the marked activity into several activities
- **Delete** – delete the marked activity
- **Properties** – view the window Properties of the marked activity

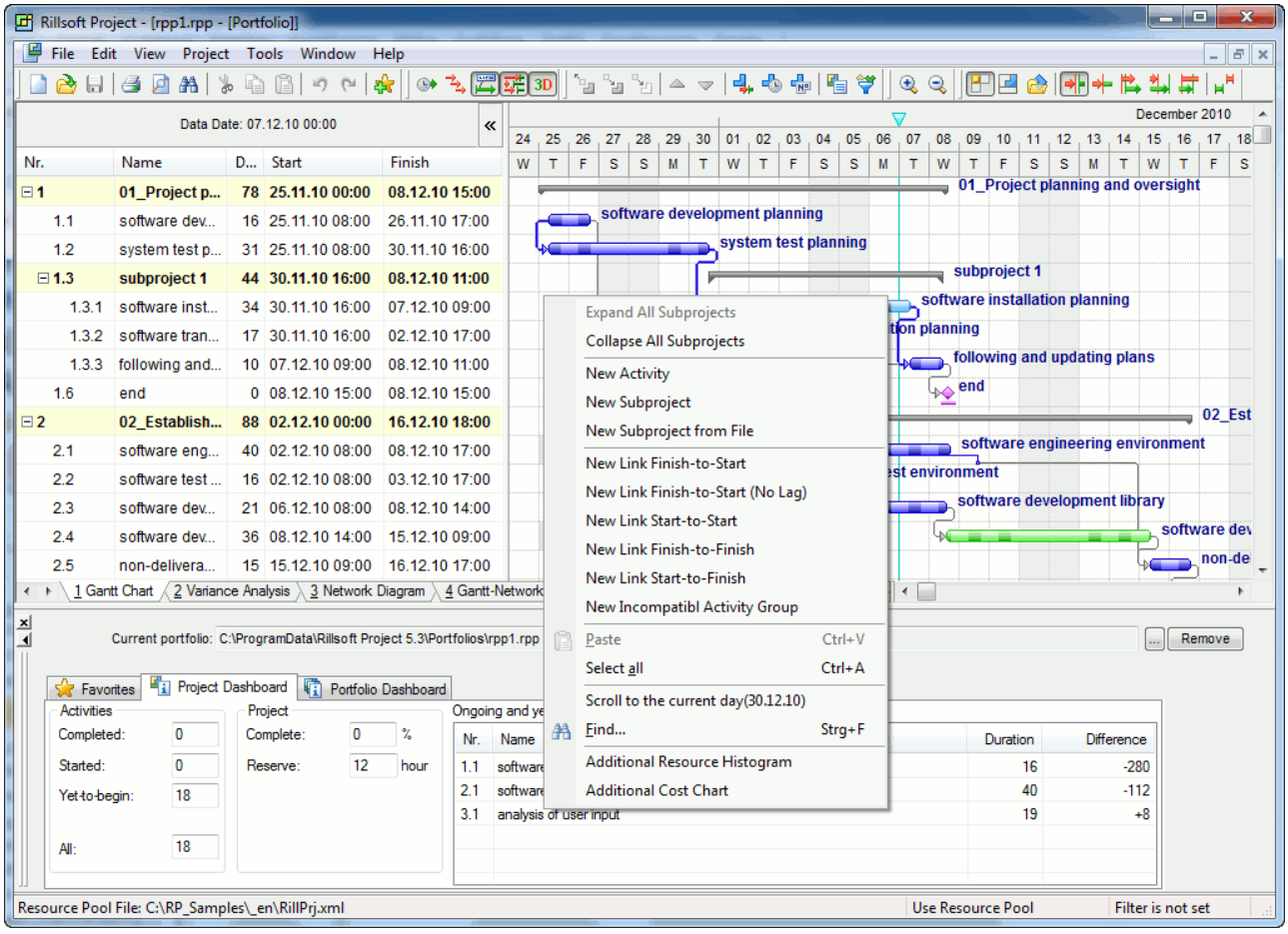
With a **marked subproject**, you can do the following activities:

- **Cut** – cut the marked activity
- **Copy** – copy the marked activity
- **Shift into a subproject** – subordinate the marked subproject to another subproject
- **Shift from a subproject** – shift the marked subproject from another subproject
- **Split activities into places / rooms** – several activities, which are displayed only as a common output, as would be the case with imported GAEB files, can be split along any criteria, so as to allow for the creation of appropriate subprojects
- **Assign employees to activities** – assigns selected employees to selected activities
- **Reassign employees from activities** – reassigns selected employees from selected activities
- **Set earliest possible start dates** – This command is active only for subprojects with fixed start and finish dates and shifts all activities in the subproject to the earliest possible start dates.

- **Set latest possible start dates** – This command is active only for subprojects with fixed start and finish dates and shifts all activities in the subproject to the latest possible start dates.
- **Shift delayed activities to deadline** – If the project controlling detects that activities are still not 100% complete and they are still not due, you can shift these activities to the deadline and so update the project's status.
- **Optimise resource utilization** – most effective distribution of resources, so as to prevent from utilization excess and shortfall
- **Delete** – delete the marked activity
- **Properties** – view the window Properties of the marked activity

For the diagram field

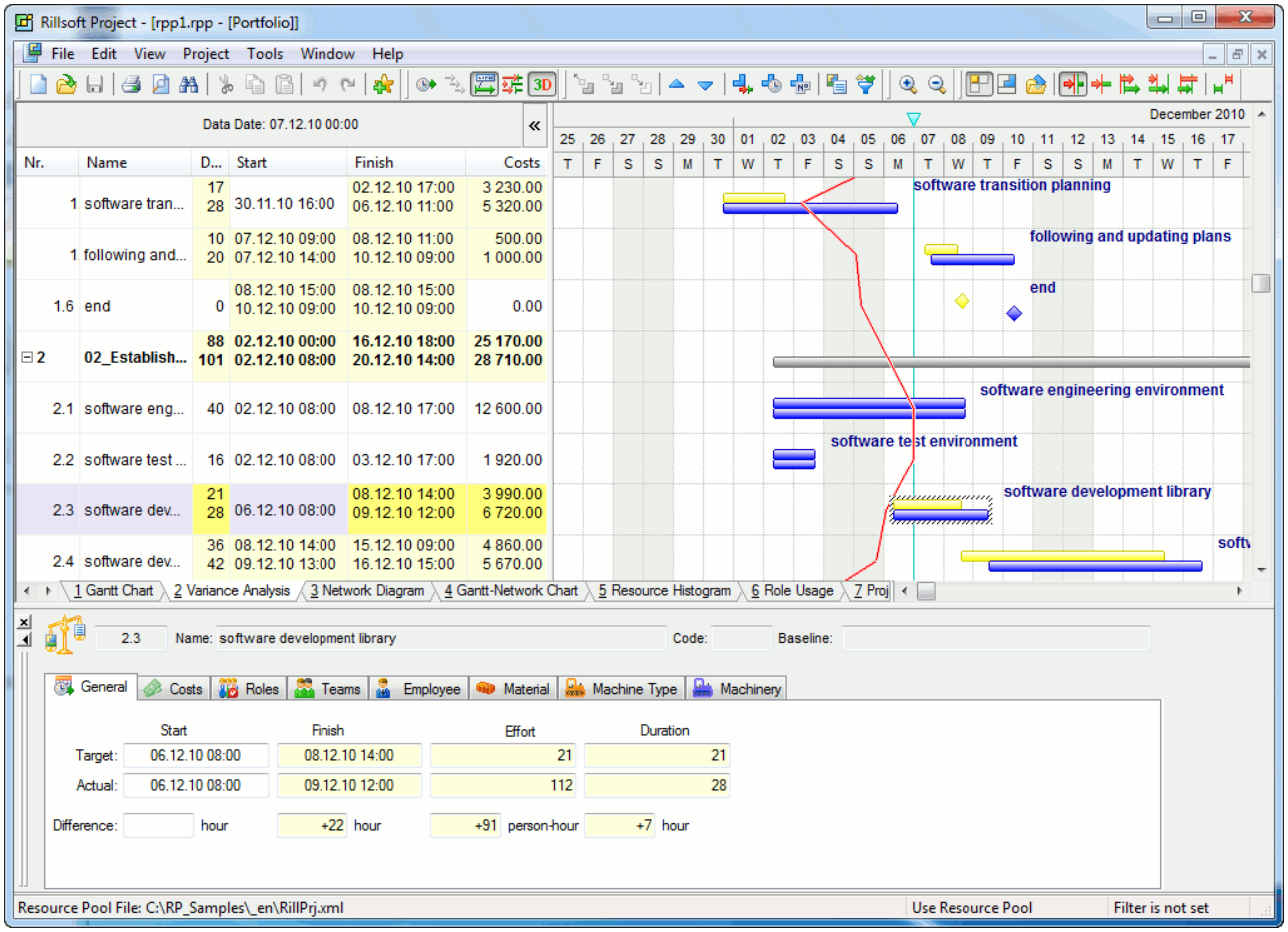
In the diagram field, you can mark an activity / subproject and do the following:



- **Expand/collapse all subprojects** – Depending on the preferred view, you can expand/collapse all subprojects.
- **New activity** - creates a new activity at the position pointed to by the cursor
- **New subproject** - creates a new subproject at the position pointed to by the cursor
- **New subproject from file** - inserts an already stored subproject of this project at the position pointed to by the cursor
- **New link finish-start** – sets a new finish-start link between activities
- **New link finish-start without delay** – sets a new finish-start link without delay between activities
- **New link start-start** – sets a new start-start link between activities
- **New link finish-finish** – sets a new finish-finish link between activities
- **New link start-finish** – sets a new start-finish link between activities
- **New incompatible activity group** – sets a new incompatible activity group link between activities

- **Insert** – inserts marked acrtivities / subprojects into a project
- **Mark all** – marks all activities and subprojects: If activities are subordinated to a subproject, only the subproject will be marked in the diagram.
- **Search** – searches for an activity or subproject within a project: If you simply enter the first letters of the activity or subproject name into the open window, the searched activity will be marked in the search list.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the bar diagram.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the bar diagram.

Variance analysis



Application of variance analyses:

- Visualisation of the difference between target and actual.
- Detailed analysis of all parameter deviations.
- Quick detection of deviations from schedule and fact by help of a progress line.

You can use the variance analysis to do the following:

- Edit activities and subprojects from the actual plan.
- Change the timescale.

Note:

- The first row lists the properties of the scheduled activities and subprojects, while the second row lists the properties of the required activities and subprojects. Parameter deviating from the the baseline are marked in yellow.

Context menu in the view Variance analysis

For the table of activities

Mark a row (activity or subproject) in the table of activities.
Once you have marked an activity, you can do as follows:

- **Expand/collapse all subprojects** – Depending on the preferred view, you can expand/collapse all subprojects.

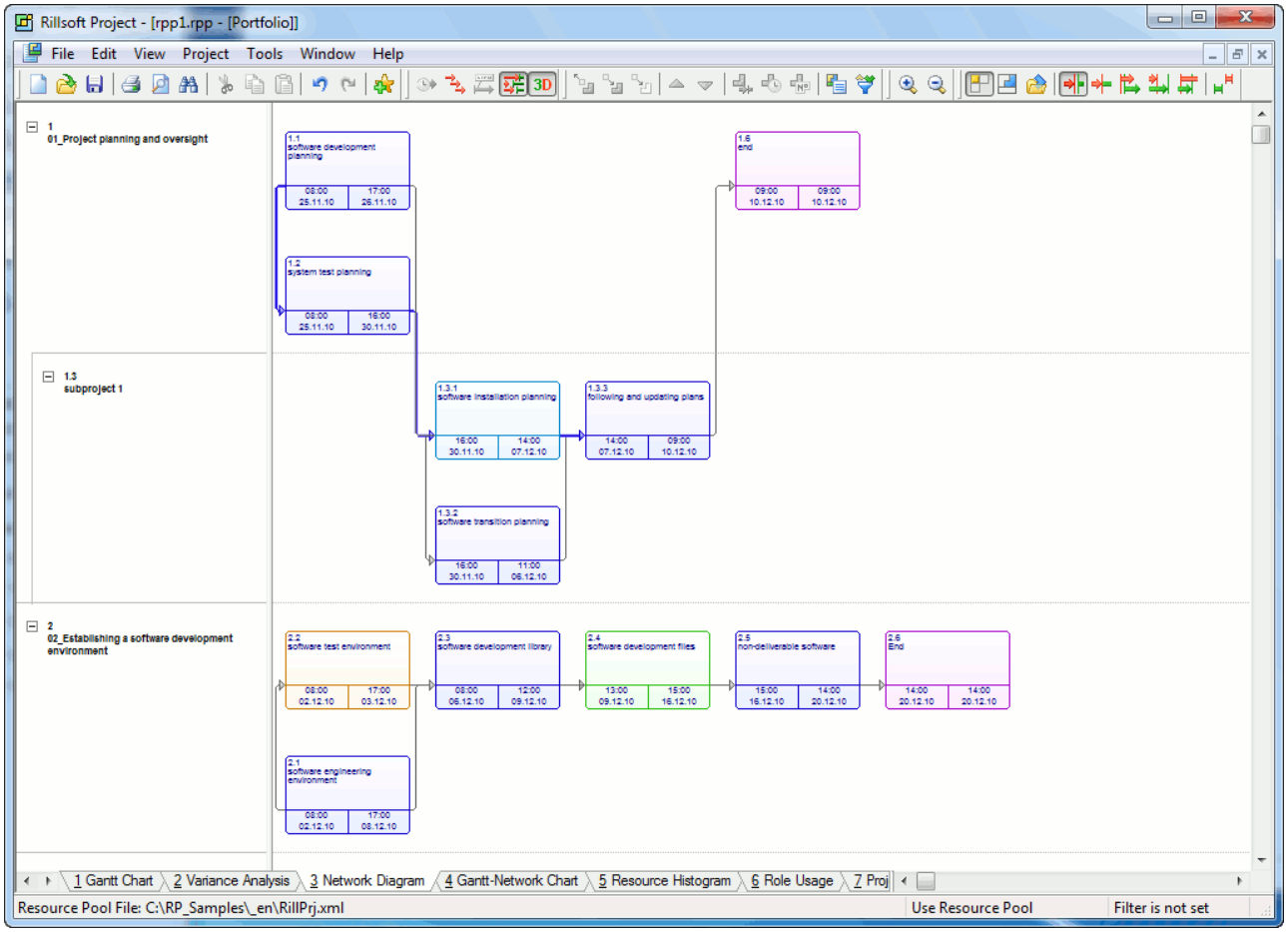
- **Search** – searches for an activity or subproject within a project: If you simply enter the first letters of the activity or subproject name into the open window, the searched activity will be marked in the search list.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the bar diagram.

For the diagram field

In the diagram field, you can mark an activity / subproject and do the following:

- **Expand/collapse all subprojects** – Depending on the preferred view, you can expand/collapse all subprojects.
- **Search** – searches for an activity or subproject within a project: If you simply enter the first letters of the activity or subproject name into the open window, the searched activity will be marked in the search list.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the bar diagram.

Network diagram



Application of the network diagram:

- Visualisation of the technological structure of the project.

You can use the network diagram to do the following:

- Create and edit activities.
- Link activities.
- Create and edit subprojects.

Context menu in the view Network diagram

For the table of activities

Once you have marked an activity, you can do as follows:

- **Cut** – cut the marked activity
- **Copy** – copy the marked activity
- **Fit "from" activities to the latest possible start dates** – shift all activities that are scheduled for an earlier time than the marked activity to the latest possible start date
- **Fit "to" activities to the earliest possible start dates** – shift all activities that are scheduled for a later time than the marked activity to the earliest possible start date
- **Shift into subproject** – shift the marked activity into a subproject
- **Shift from subproject** – shift the marked activity from a subproject
- **Completed** – enter the percentage of completion of a marked activity
- **Split** – split the marked activity into several activities

- **Remove from incompatible activity group** - Removes the marked activity from the incompatible activity group link.
- **Delete** – delete the marked activity
- **Properties** – view the window Properties of the marked activity

With a **marked subproject**, you can do the following activities:

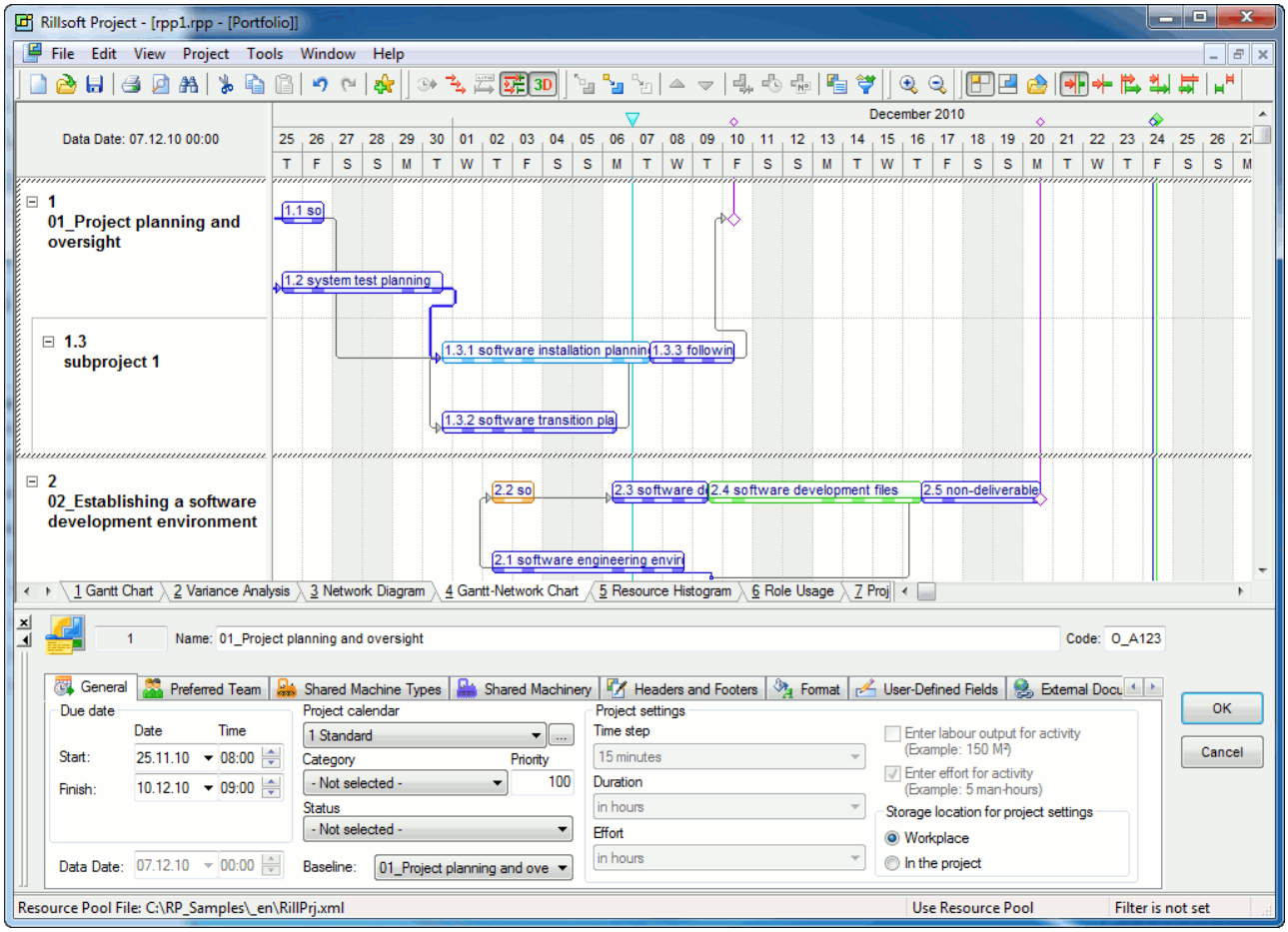
- **Cut** – cuts the marked subproject
- **Copy** – copies the marked subproject
- **Shift into a subproject** – subordinate the marked subproject to another subproject
- **Shift from a subproject** – shift the marked subproject from another subproject
- **Split activities into places/rooms** – several activities, which are displayed only as a common output, as would be the case with imported GAEB files, can be split along any criteria, so as to allow for the creation of appropriate subprojects
- **Assign employees to activities** – assigns selected employees to selected activities
- **Reassign employees from activities** – reassigns selected employees from selected activities
- **Set earliest possible start dates** – This command is active only for subprojects with fixed start and finish dates and shifts all activities in the subproject to the earliest possible start dates.
- **Set latest possible start dates** – This command is active only for subprojects with fixed start and finish dates and shifts all activities in the subproject to the latest possible start dates.
- **Shift delayed activities to deadline** – If the project controlling detects that activities are still not 100% complete and they are still not due, you can shift these activities to the deadline and so update the project's status.
- **Optimise resource utilization** – most effective distribution of resources, so as to prevent from utilization excess and shortfall within the defined period
- **Delete** – deletes the marked subproject
- **Properties** – views the window Properties of the marked subproject

For the diagram field

In the diagram field, you can mark an activity / subproject and do the following:

- **Expand/collapse all subprojects** – Depending on the preferred view, you can expand/collapse all subprojects.
- **New activity** - creates a new activity at the position pointed to by the cursor
- **New subproject** - creates a new subproject at the position pointed to by the cursor
- **New subproject from file** - inserts an already stored subproject of this project at the position pointed to by the cursor
- **New link finish-start** – sets a new finish-start link between activities
- **New link finish-start without delay** – sets a new finish-start link without delay between activities
- **New link start-start** – sets a new start-start link between activities
- **New link finish-finish** – sets a new finish-finish link between activities
- **New link start-finish** – sets a new start-finish link between activities
- **New incompatible activity group** – sets a new incompatible activity group link between activities
- **Insert** – inserts marked acrtivities / subprojects into a project
- **Mark all** – marks all activities and subprojects: If activities are subordinated to a subproject, only the subproject will be marked in the diagram.
- **Search** – searches for an activity or subproject within a project: If you simply enter the first letters of the activity or subproject name into the open window, the searched activity will be marked in the search list.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the bar diagram.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the bar diagram.

Gantt network diagram



Application of the bar-network diagram:

- Visualisation of time scheduling and the technological structure of the project.

You can use the Gantt network diagram to do the following:

- Create and edit activities.
- Link activities.
- Create and edit subprojects.
- Edit the technological structure.

Context menu in the view Gantt network diagram

For the table of activities

Once you have marked an activity, you can do as follows:

- **Cut** – cut the marked activity
- **Copy** – copy the marked activity
- **Fit "from" activities to the latest possible start dates** – shift all activities that are scheduled for an earlier time than the marked activity to the latest possible start date
- **Fit "to" activities to the earliest possible start dates** – shift all activities that are scheduled for a later time than the marked activity to the earliest possible start date
- **Shift into subproject** – shift the marked activity into a subproject
- **Shift from subproject** – shift the marked activity from a subproject
- **Completed** – enter the percentage of completion of a marked activity

- **Split** – split the marked activity into several activities
- **Delete** – delete the marked activity
- **Properties** – view the window Properties of the marked activity

With a **marked subproject**, you can do the following activities:

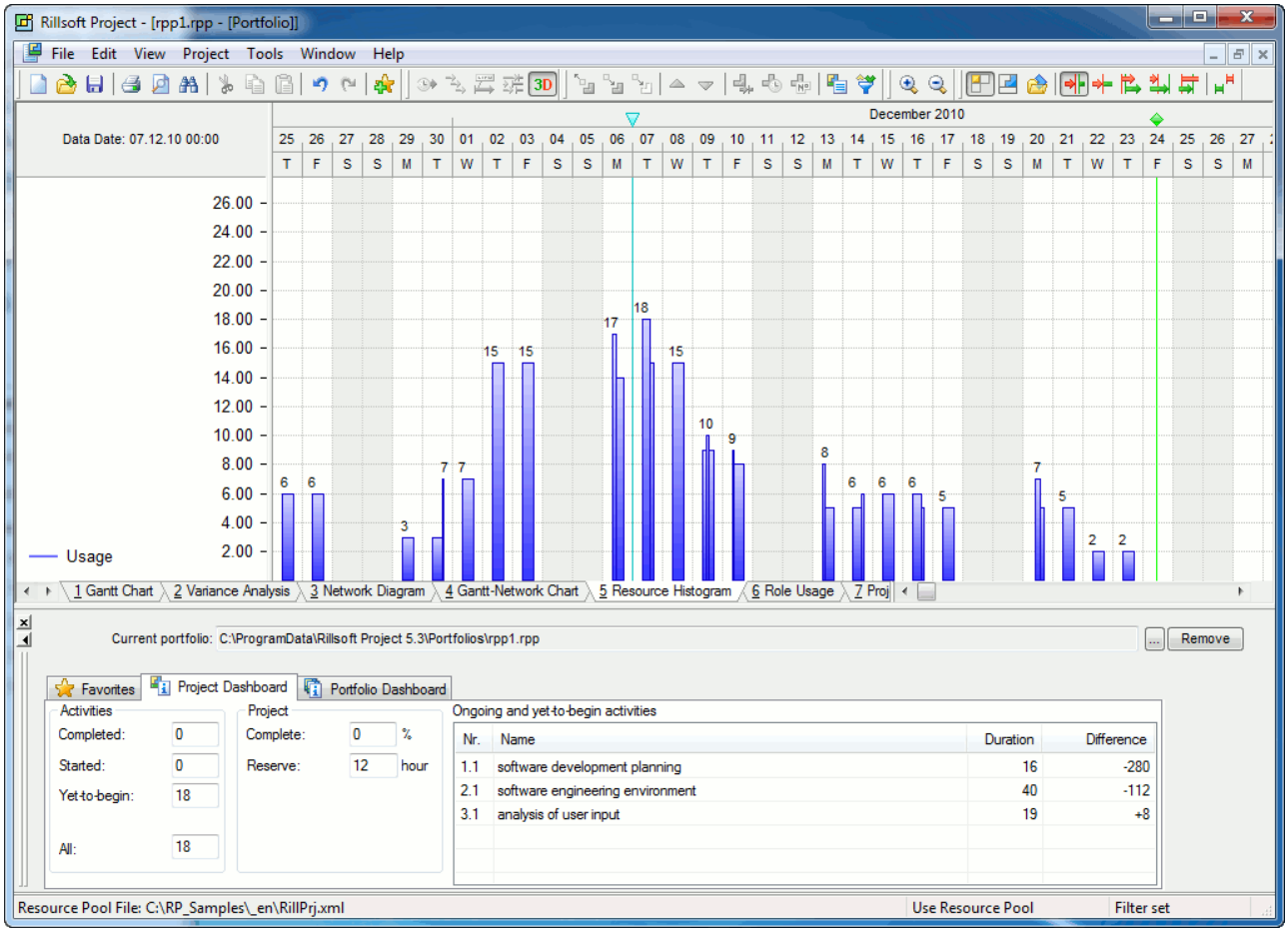
- **Cut** – cut the marked activity
- **Copy** – copy the marked activity
- **Shift into a subproject** – subordinate the marked subproject to another subproject
- **Shift from a subproject** – shift the marked subproject from another subproject
- **Split activities into places/rooms** – several activities, which are displayed only as a common output, as would be the case with imported GAEB files, can be split along any criteria, so as to allow for the creation of appropriate subprojects
- **Assign employees to activities** – assigns selected employees to selected activities
- **Reassign employees from activities** – reassigns selected employees from selected activities
- **Set earliest possible start dates** – This command is active only for subprojects with fixed start and finish dates and shifts all activities in the subproject to the earliest possible start dates.
- **Set latest possible start dates** – This command is active only for subprojects with fixed start and finish dates and shifts all activities in the subproject to the latest possible start dates.
- **Shift delayed activities to deadline** – If the project controlling detects that activities are still not 100% complete and they are still not due, you can shift these activities to the deadline and so update the project's status.
- **Optimise resource utilization** – most effective distribution of resources, so as to prevent from utilization excess and shortfall
- **Delete** – delete the marked activity
- **Properties** – views the window Properties of the marked subproject

For the diagram field

In the diagram field, you can mark an activity / subproject and do the following:

- **Expand/collapse all subprojects** – Depending on the preferred view, you can expand/collapse all subprojects.
- **New activity** - creates a new activity at the position pointed to by the cursor
- **New subproject** - creates a new subproject at the position pointed to by the cursor
- **New subproject from file** - inserts an already stored subproject of this project at the position pointed to by the cursor
- **New link finish-start** – sets a new finish-start link between activities
- **New link finish-start without delay** – sets a new finish-start link without delay between activities
- **New link start-start** – sets a new start-start link between activities
- **New link finish-finish** – sets a new finish-finish link between activities
- **New link start-finish** – sets a new start-finish link between activities
- **New incompatible activity group** – sets a new incompatible activity group link between activities
- **Insert** – inserts marked acrtivities / subprojects into a project
- **Mark all** – marks all activities and subprojects: If activities are subordinated to a subproject, only the subproject will be marked in the diagram.
- **Search** – searches for an activity or subproject within a project: If you simply enter the first letters of the activity or subproject name into the open window, the searched activity will be marked in the search list.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the bar diagram.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the bar diagram.

Resource histogram



Application of the resource diagram:

- Visualisation of the resource utilization.

Notes:

The menu item **Tools / Global settings** tab **General** allows you to attach numerical values

- to the resource diagram by clicking on the check box **Label**.

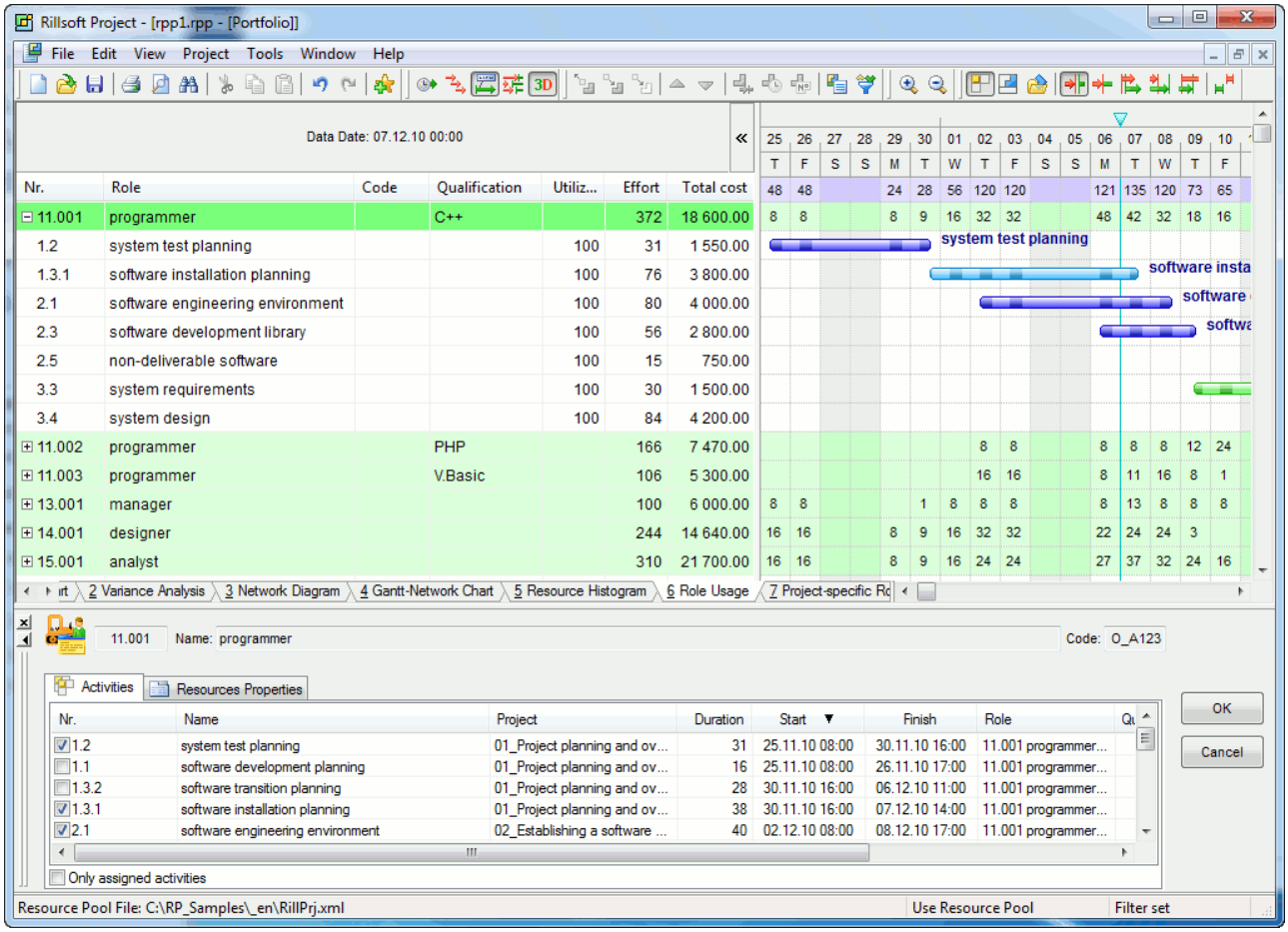
You can use the resource diagram to do the following:

- Analyse the resource utilization by help of filter settings.
- Change the timescale.

Context menu in the view Resource diagram

- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the bar diagram.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the bar diagram.

Role usage



Applications for the Role usage:

- Display of the project's demand for resources in the form of roles.
- Resource allocation from the perspective of roles.
- Calculation of the utilization of every single role.
- Calculation of the total efforts for and total costs of every single role.
- Visualisation of the assignation of roles within activities.

You can use the Role usage for the following:

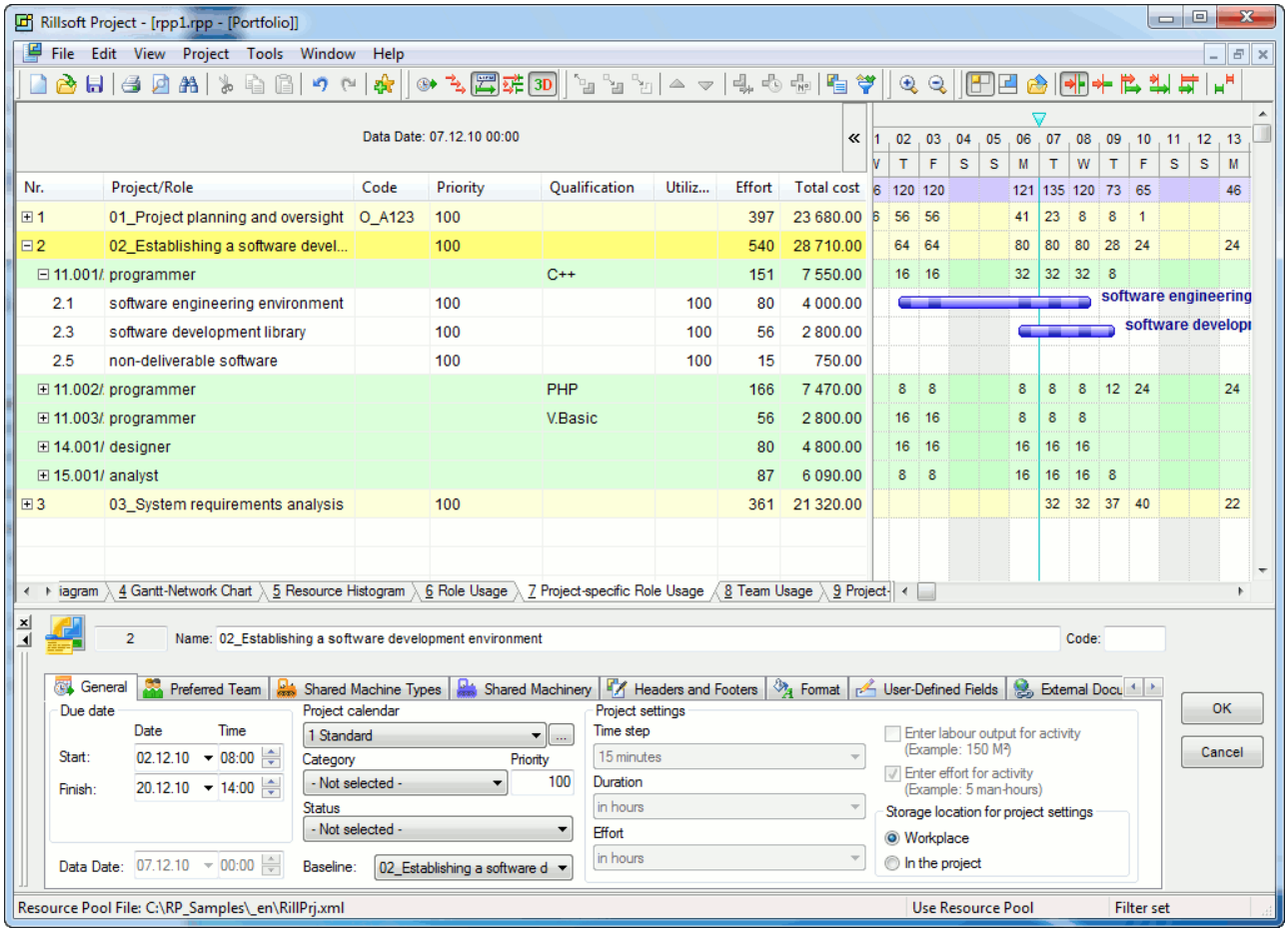
- Assign selected activities to a role.
- Analyse the role utilization by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.

Context menu in the Role usage

- **Expand/collapse all roles** – Depending on the preferred view, you can expand/collapse all roles.
- **Show maximum per time unit** – The maximum required number of personnel resources for each of the roles / qualifications per day, week, etc.
- **Show average per time unit** – The average required number of personnel resources for each of the roles / qualifications per day, week, etc.
- **Show effort per time unit** – Planned effort in employee hours (or employee days, respectively) per day, week, etc.

- **Group by roles** – Presents the qualifications belonging to a role in one row with total utilization.
- **Place activities in one row, if possible** - Displays the activities done by one role in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.
- **Display in reference to subprojects** - The role utilization is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Sort roles** – All displayed roles can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Unhide total utilization** - Total utilization for all roles in the project per day, week, etc.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the bar diagram.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the bar diagram.

Project-specific role usage



Applications for the view Project-specific role usage:

- Project-specific display of the project's demand for resources in the form of roles.
- Resource allocation from the perspective of roles.
- Project-specific calculation of the utilization of every single role.
- Project-specific calculation of the total efforts for and total costs of every single role.
- Visualisation of the assignation of roles within activities.

You can use the view Project-specific role usage for the following:

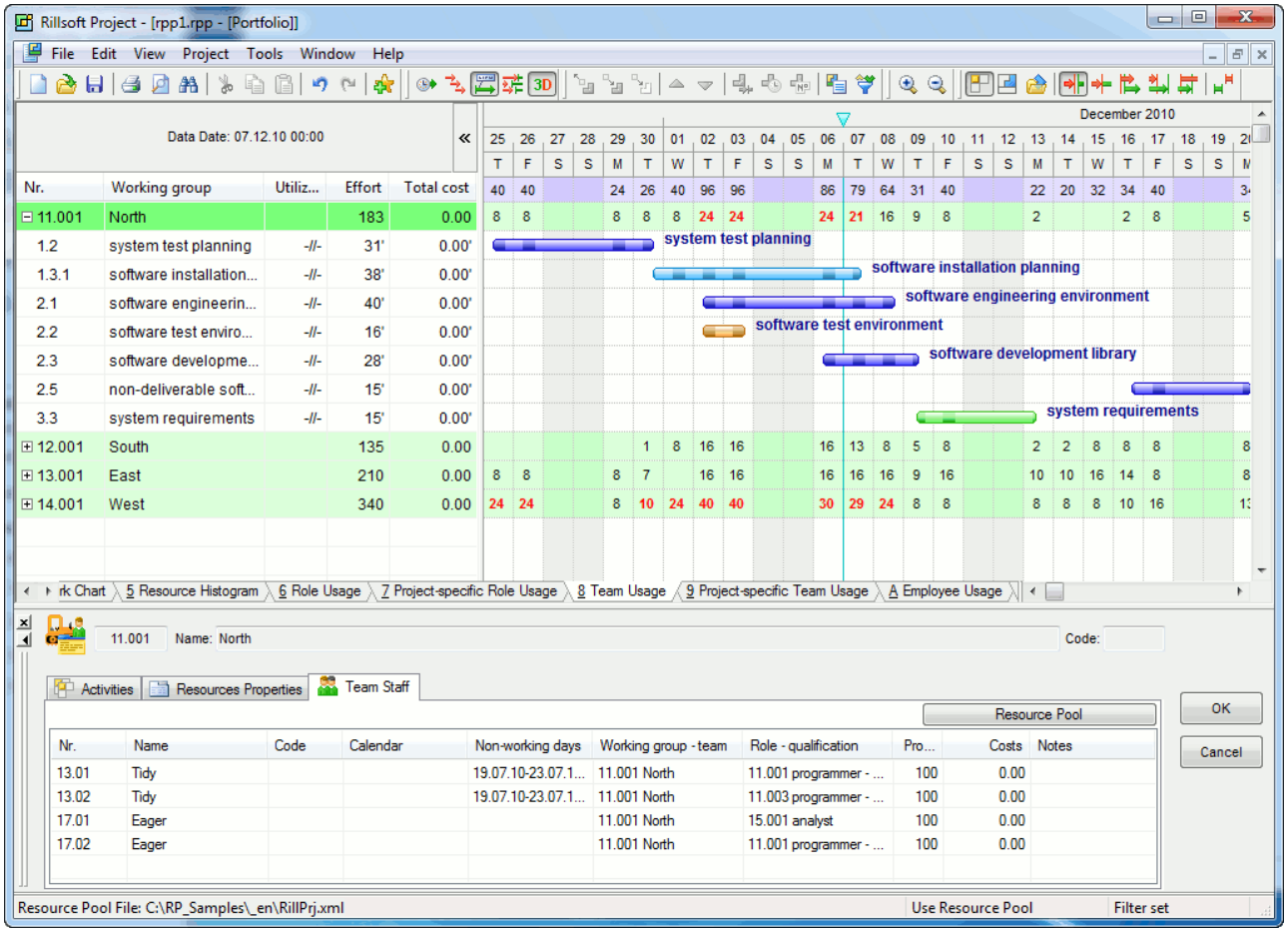
- Assign selected activities to a role.
- Analyse the role utilization for each of the projects by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.

Context menu in the view Role usage

- **Expand/collapse all roles** – Depending on the preferred view, you can expand/collapse all roles.
- **Show maximum per time unit** – The maximum required number of personnel resources for each of the roles / qualifications per day, week, etc.
- **Show average per time unit** – The average required number of personnel resources for each of the roles / qualifications per day, week, etc.
- **Show effort per time unit** – Planned effort in employee hours (or employee days, respectively) per day, week, etc.

- **Group by roles** – Presents the qualifications belonging to a role in one row with total utilization.
- **Place activities in one row, if possible** - Displays the activities done by one role in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.
- **Display in reference to subprojects** - The role utilization is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Sort roles** – All displayed roles can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Unhide total utilization** - Total utilization for all roles in the project per day, week, etc.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the bar diagram.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the bar diagram.

Team usage

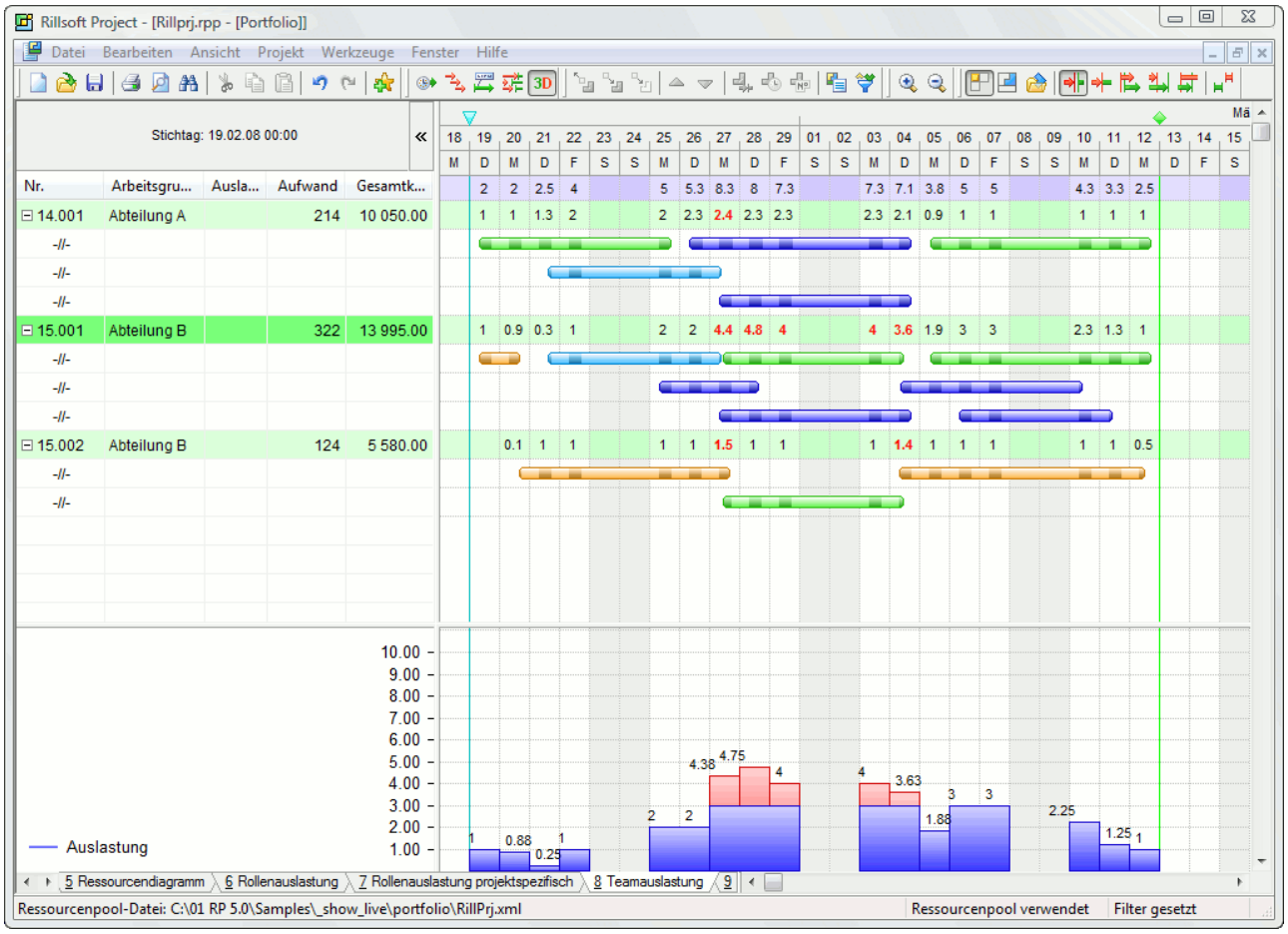


Application of the view Team usage:

- Display of the project's demand for resources in the form of teams.
- Resource allocation from the perspective of teams.
- Calculation of the utilization for every single team.
- Calculation of the total efforts for and total costs of every single team.
- Visualisation of the assignation of teams to activities.

You can use the view Team usage for the following:

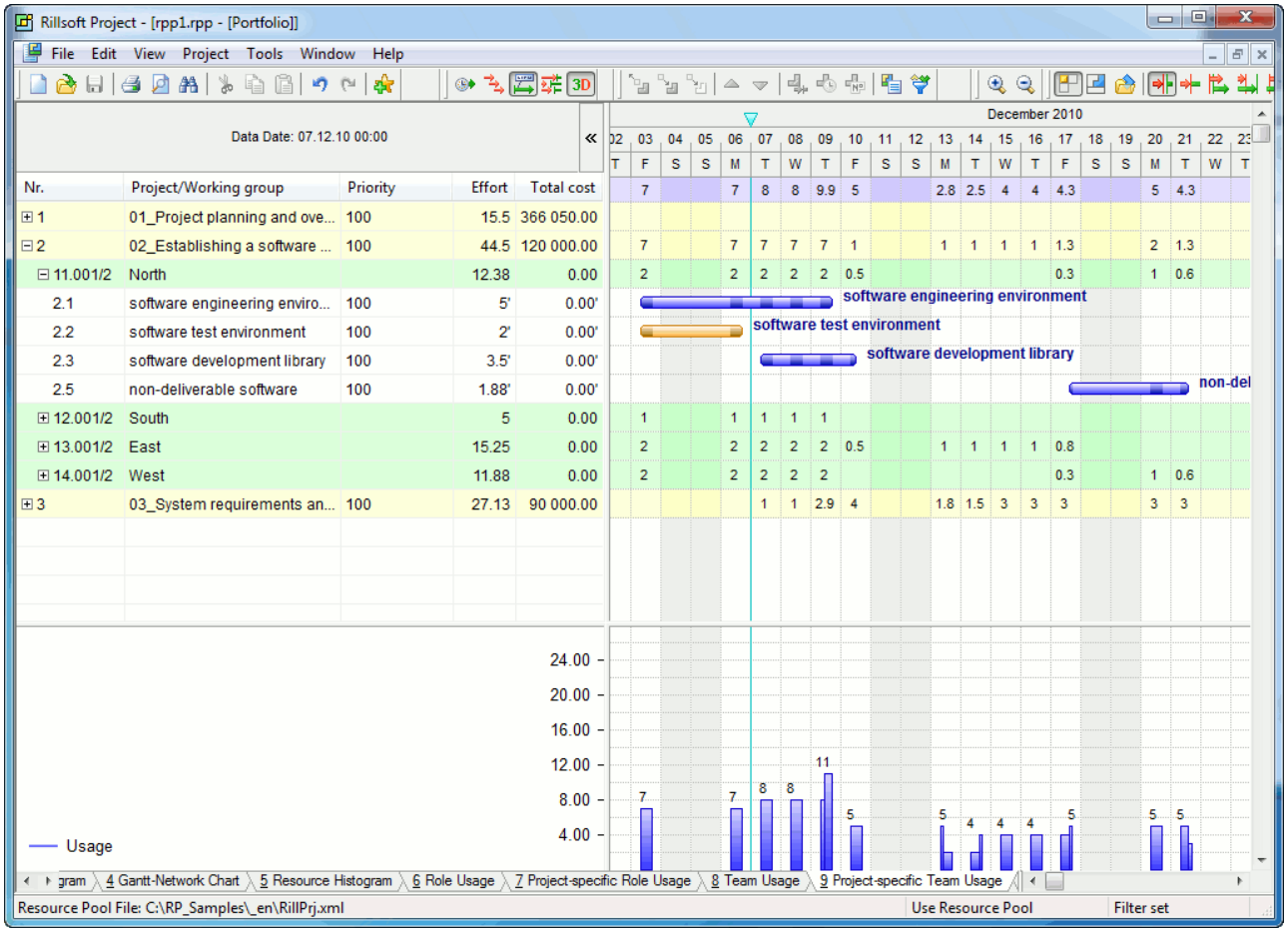
- Assign selected activities to a team.
- Analyse the team utilization by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.
- View additional resource diagram or break-even chart.



Context menu in the view Team usage

- **Expand/collapse all teams** – Depending on the preferred view, you can expand/collapse all teams.
- **Show maximum per time unit** – The maximum required number of personnel resources for each of the work groups / teams per day, week, etc.
- **Show average per time unit** – The average required number of team resources / teams per day, week, etc.
- **Show effort per time unit** – Planned effort in employee hours (or employee days, respectively) per day, week, etc.
- **Group by teams** – Presents the teams belonging to a work group in one row with total utilization.
- **Place activities in one row, if possible** - Displays the activities done by one team in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.
- **Display in reference to subprojects** - The team utilization is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Sort teams** – All displayed teams can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Unhide total utilization** - Total utilization for all teams in the project per day, week, etc.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the window Team Utilization.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Team Utilization.

Project-specific team usage



Application of the view Project-specific team usage:

- Display of each of the project's demand for resources in the form of teams.
- Resource allocation from the perspective of teams.
- Project-specific calculation of the utilization fof every single team.
- Project-specific calculation of the total efforts for and total costs of every single team.
- Project-specific visualisation of the assignation of teams to activities.

You can use the view Project-specific team usage for the following:

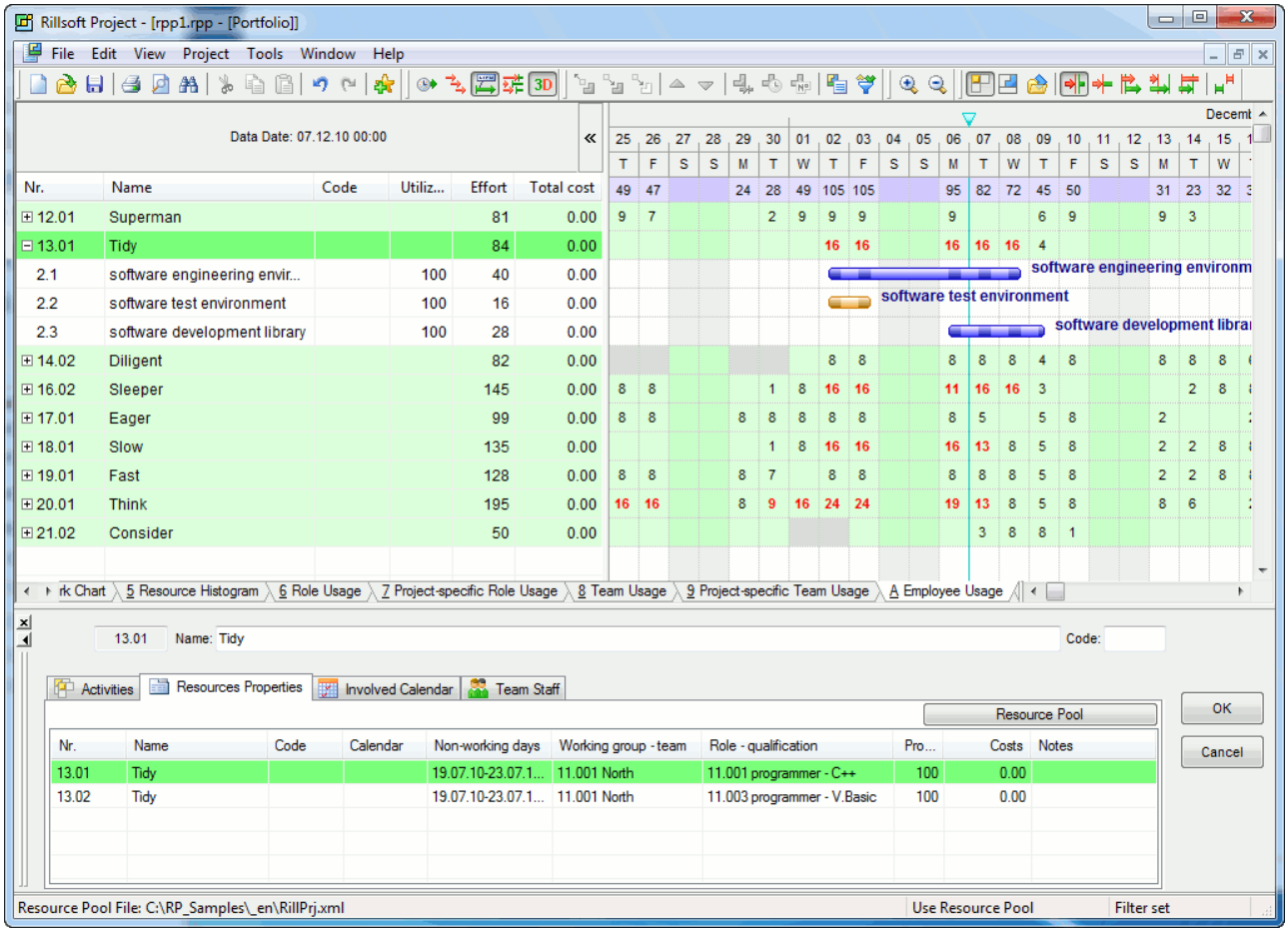
- Assign selected activities to a team.
- Analyse the team utilization by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.
- View additional resource diagram or break-even chart.

Context menu in the view Project-specific team usage

- **Expand/collapse all teams** – Depending on the preferred view, you can expand/collapse all teams.
- **Show maximum per time unit** – The maximum required number of personnel resources for each of the work groups / teams per day, week, etc.
- **Show average per time unit** – The average required number of team resources / teams per day, week, etc.
- **Group by teams** – Presents the teams belonging to a work group in one row with total utilization.

- **Place activities in one row, if possible** - Displays the activities done by one team in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.
- **Display in reference to subprojects** - The team utilization is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Sort teams** – All displayed teams can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Unhide total utilization** - Total utilization for all teams in the project per day, week, etc.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the window Team Utilization.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Team Utilization.

Employee usage



Applications for the view Employee usage:

- Display of the project's demand for resources in the form of employees.
- Resource allocation from the perspective of employees.
- Calculation of the utilization of every single employee.
- Calculation of the total efforts for and total costs of every single employee.
- Visualisation of the assignation of employees to activities.

You can use the view Employee usage for the following:

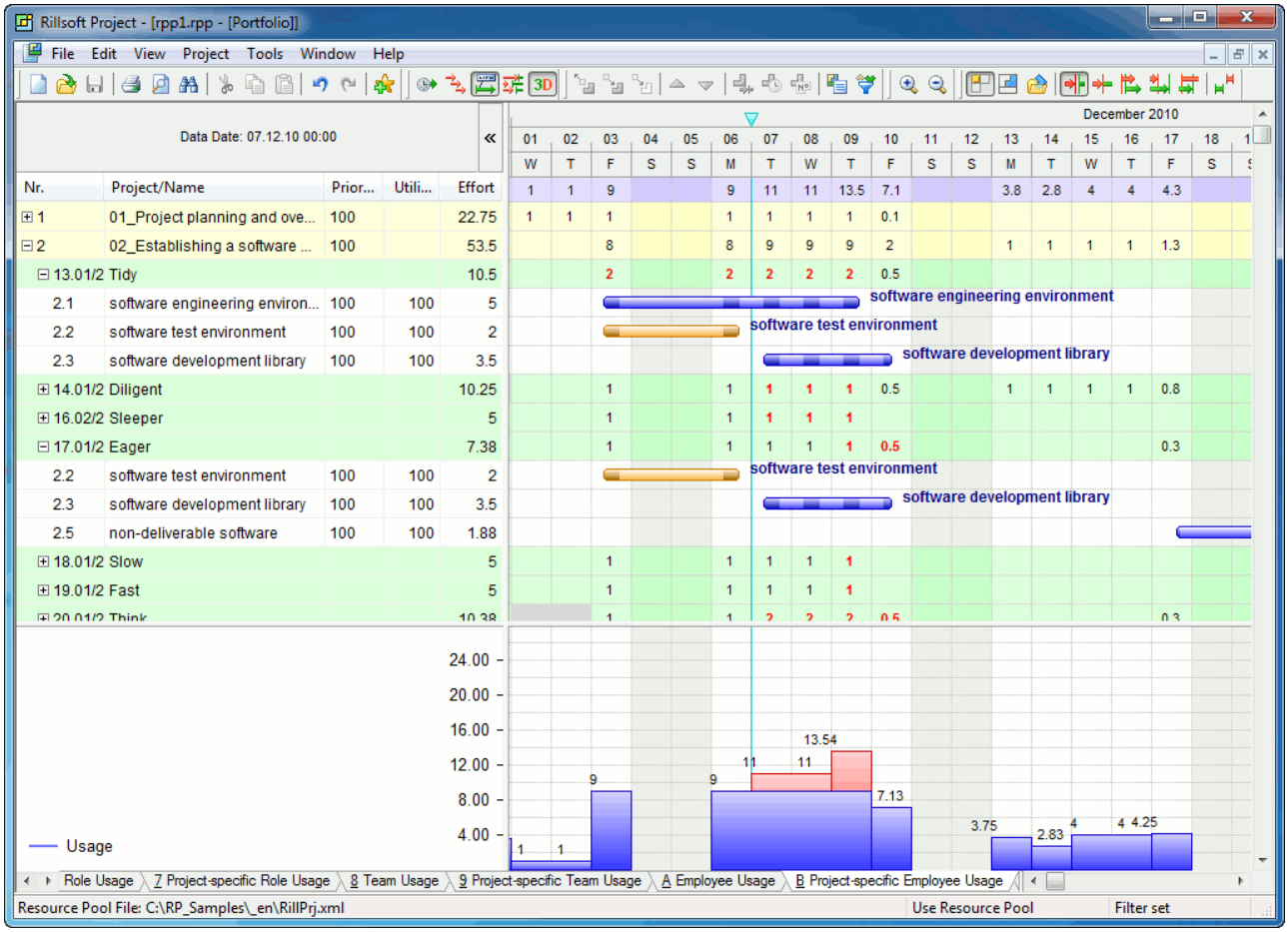
- Assign selected activities to an employee.
- Analyse the employee utilization by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.
- Check the calendar of employees.

Context menu in the view Employee usage

- **Expand/collapse all employees** – Depending on the preferred view, you can expand/collapse detailed views of all employees.
- **Show maximun per time unit** – The maximum required number of personnel resources per day, week, etc.
- **Show average per time unit** – The average required number of personnel resources per day, week, etc.
- **Show effort per time unit** – Planned effort in employee hours (or employee days, respectively) per day, week, etc.

- **Show utilization per time unit** – Shows the weekly total utilization of employees in percent instead in employee hours / employee days.
- **Group by employees** – Shows the total effort for each of the employees, that is, without the separation into their different role-qualifications.
- **Place activities in one row, if possible** - Displays the activities entered for an employee in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.
- **Display in reference to subprojects** - The utilization of employees is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Sort employees** – All displayed employees can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Unhide total utilization** - Total utilization for all employees in the project per day, week, etc.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the window Employee Utilization.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Employee utilization.

Project-specific employee usage



Applications for the view Project-specific employee usage:

- Project-specific display of the project's demand for resources in the form of employees.
- Resource allocation from the perspective of employees.
- Project-specific calculation of the utilization of every single employee.
- Project-specific calculation of the total efforts for and total costs of every single employee.
- Visualisation of the assignation of employees to activities.

You can use the view Project-specific employee usage for the following:

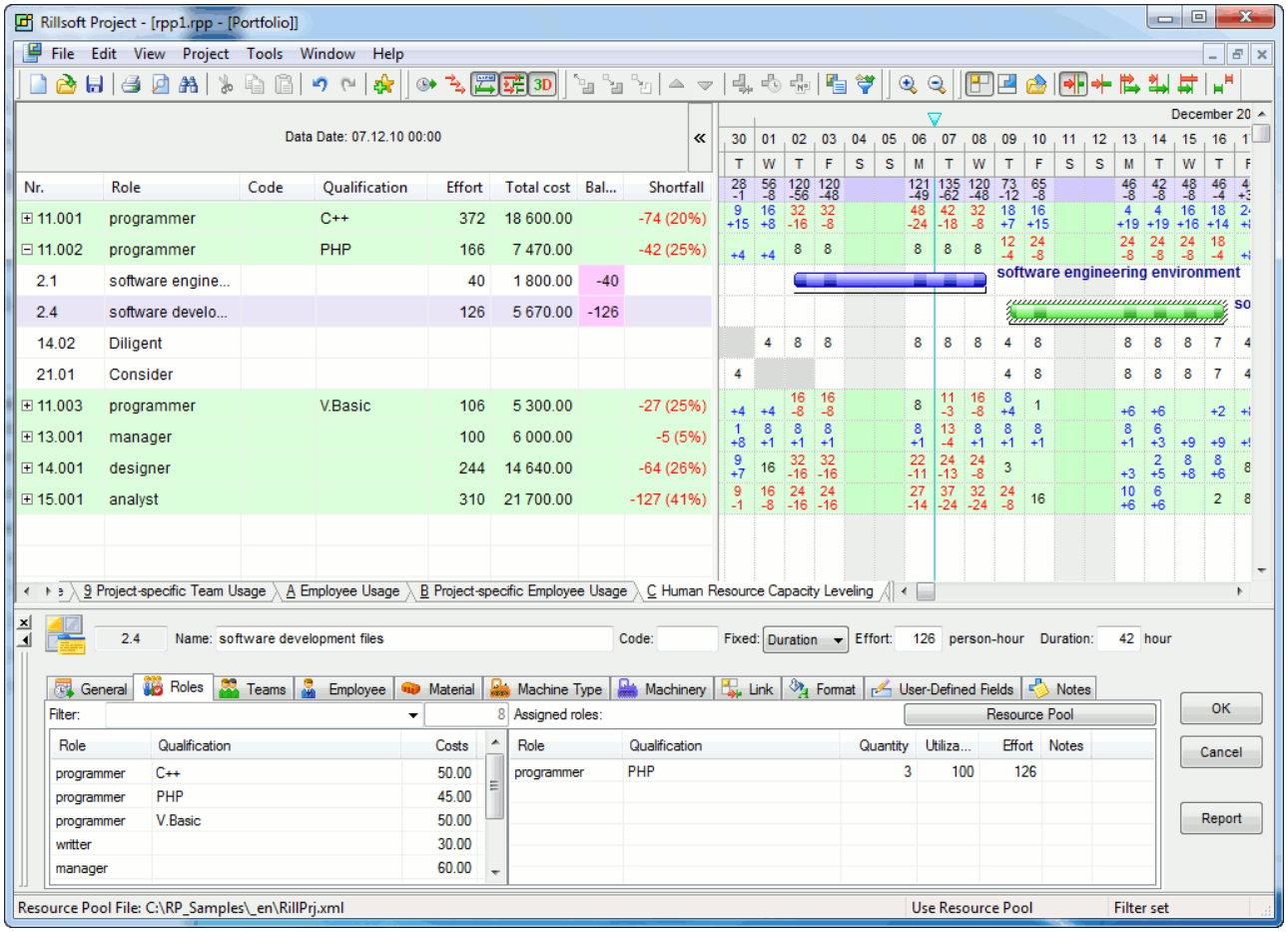
- Assign selected activities to an employee.
- Analyse the utilization of employees for each of the projects by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.
- Check the calendar of employees.

Context menu in the view Project-specific employee usage

- **Expand/collapse all employees** – Depending on the preferred view, you can expand/collapse detailed views of all employees.
- **Show maximun per time unit** – The maximum required number of personnel resources per day, week, etc.
- **Show average per time unit** – The average required number of personnel resources per day, week, etc.

- **Show effort per time unit** – Planned effort in employee hours (or employee days, respectively) per day, week, etc.
- **Show utilization (in percent) per time unit** – Shows the daily or weekly total utilization of employees in percent instead in employee hours / employee days.
- **Group by employees** – Shows the total effort for each of the employees, that is, without the separation into their different role-qualifications.
- **Place activities in one row, if possible** - Displays the activities done by one employee in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.
- **Display in reference to subprojects** - The utilization of employees is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Sort employees** – All displayed employees can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Unhide total utilization** - Total utilization for all employees in the project per day, week, etc.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the window Employee Utilization.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Employee utilization.

Human Resource Capacity Leveling



If the scheduling of roles and machine types is completed, the view Capacity alignment personnel helps you estimate whether there is sufficient personnel capacities to execute the project or where potential bottlenecks may occur.

The **Capacity alignment personnel** is determined by the number of employees, their qualifications, time of employment and place of work (project, subproject). The **Capacity alignment personnel** not only shows the number of the required hours and days for employees and roles, but also indicates ecxess and shortfall (supply minus demand = contingency). Moreover, the view **Capacity alignment personnel** helps you detect employees that match the requirements of the demand.

Employees whose employee hours / days are in boldface, have already been assigned to this activity. If they are displayed in both boldface and red colour, you have an assignation conflict, which means that the employee has been assigned to several activities at one time.

You can use the Human Resource Capacity Leveling to do the following:

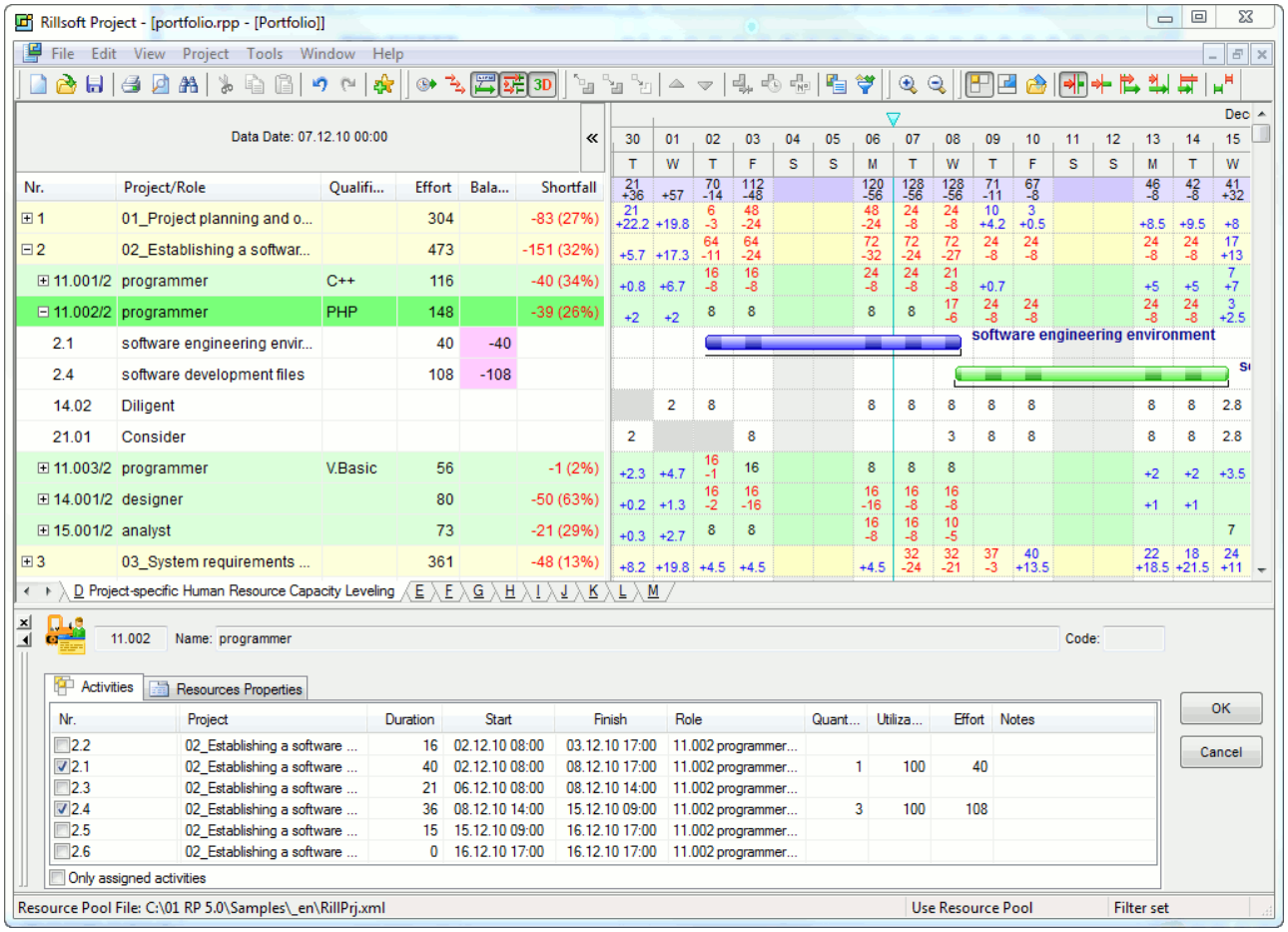
- Detect overloaded resources as well as the scale and cause of this event.
- View the working capacity for each of the resource role.
- Calculate the numbers of work hours that have been assigned to the individual employees.
- Determine the time the employee is available for additional assignments.

Context menu in the view Human Resource Capacity Leveling

- **Expand/collapse all resources** – Depending on the preferred view, you can expand/collapse all resources.

- **Show maximum per time unit** – The maximum required number of personnel resources for each of the roles / qualifications per day, week, etc.
- **Show effort per time unit** – Planned effort in employee hours (or employee days, respectively) per day, week, etc.
- **Group by roles** – Presents the qualifications belonging to a role in one row with total utilization.
- **Place activities in one row, if possible** - Displays the activities done by one role in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.
- **Display in reference to subprojects** - The resource utilization is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Unhide activities** – Depending on the preferred view, you can hide or unhide activities.
- **Unhide employees** – Depending on the preferred view, you can hide or unhide employees.
- **Sort roles** – All displayed roles can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Sort employees** – All displayed employees can be sorted along number, name, code or cost per hour.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the window Role utilization.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Role utilization.

Project-specific Human Resource Capacity Leveling



Once the scheduling of roles and machine types is completed, the view Capacity alignment personnel will help you estimate whether there is sufficient personnel capacities to execute the project or where potential bottlenecks may occur.

The **Project-specific capacity alignment personnel** is determined by the number of employees, their qualifications, time of employment and place of work (project, subproject). The **Capacity alignment personnel** not only shows the number of the required hours and days for employees and roles, but also indicates ecxess and shortfall (supply minus demand = contingency). Moreover, the view **Project-specific capacity alignment personnel** helps you detect employees that match the requirements of the demand.

Employees whose employee hours / days are in boldface, have already been assigned to this activity. If they are displayed in both boldface and red colour, you have an assignation conflict, which means that the employee has been assigned to several activities at one time.

You can use the Project-specific Human Resource Capacity Leveling to do the following:

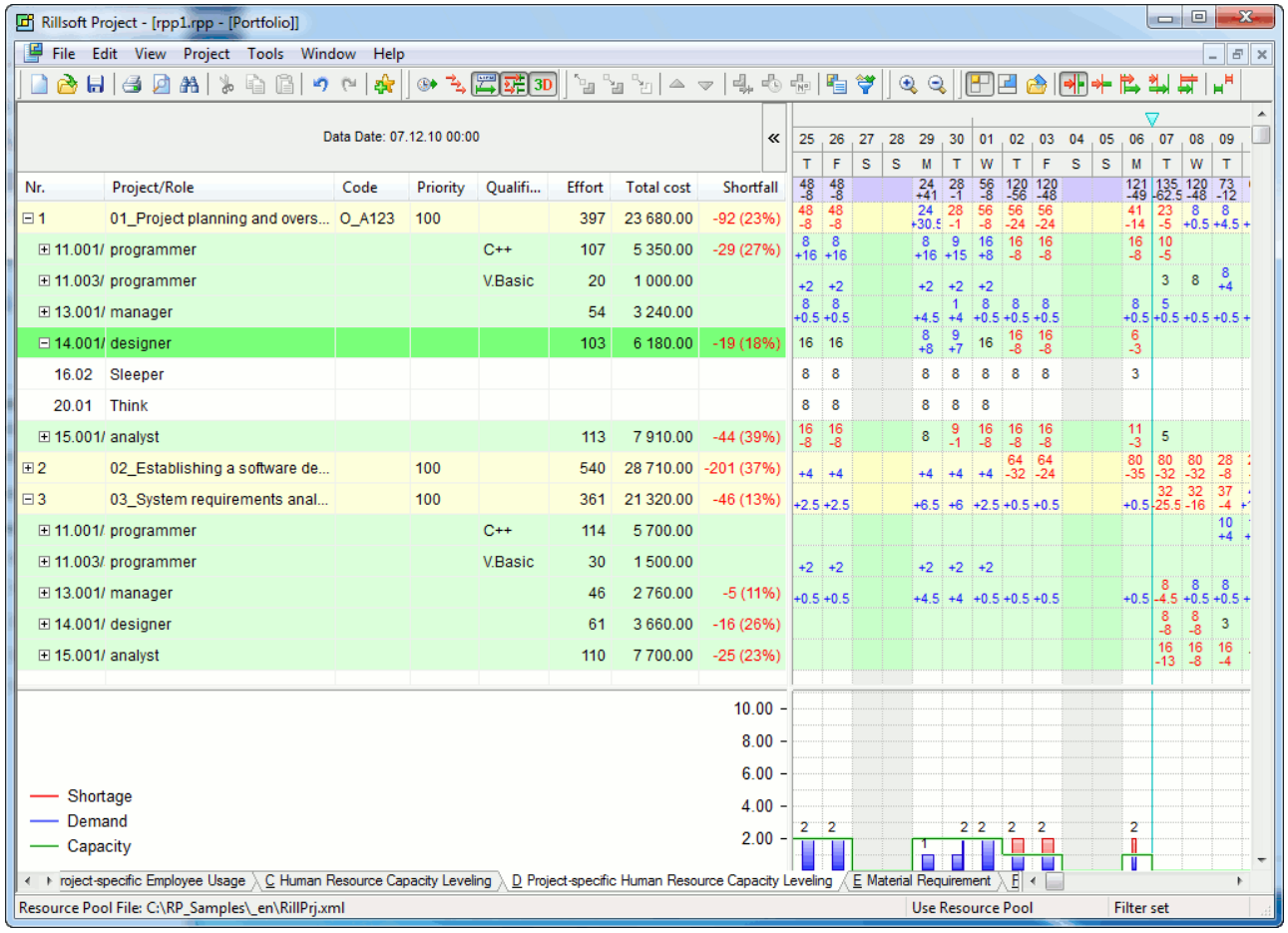
- Detect overloaded resources as well as the scale and cause for this event.
- View the working capacity for each of the resource role per project.
- Calculate the numbers of work that have been assigned to the individual employees per project.
- Determine the time the employee is available for additional assignments.

Context menu in the view Human Resource Capacity Leveling

- **Expand/collapse all resources** – Depending on the preferred view, you can expand/collapse all resources.

- **Show maximum per time unit** – The maximum required number of personnel resources for each of the roles / qualifications per day, week, etc.
- **Show effort per time unit** – Planned effort in employee hours (or employee days, respectively) per day, week, etc.
- **Group by roles** – Presents the qualifications belonging to a role in one row with total utilization.
- **Place activities in one row, if possible** - Displays the activities done by one role in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.
- **Display in reference to subprojects** - The resource utilization is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Unhide activities** – Depending on the preferred view, you can hide or unhide activities.
- **Unhide employees** – Depending on the preferred view, you can hide or unhide employees.
- **Sort roles** – All displayed roles can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Sort employees** – All displayed employees can be sorted along number, name, code or cost per hour.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the window Role utilization.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Role utilization.

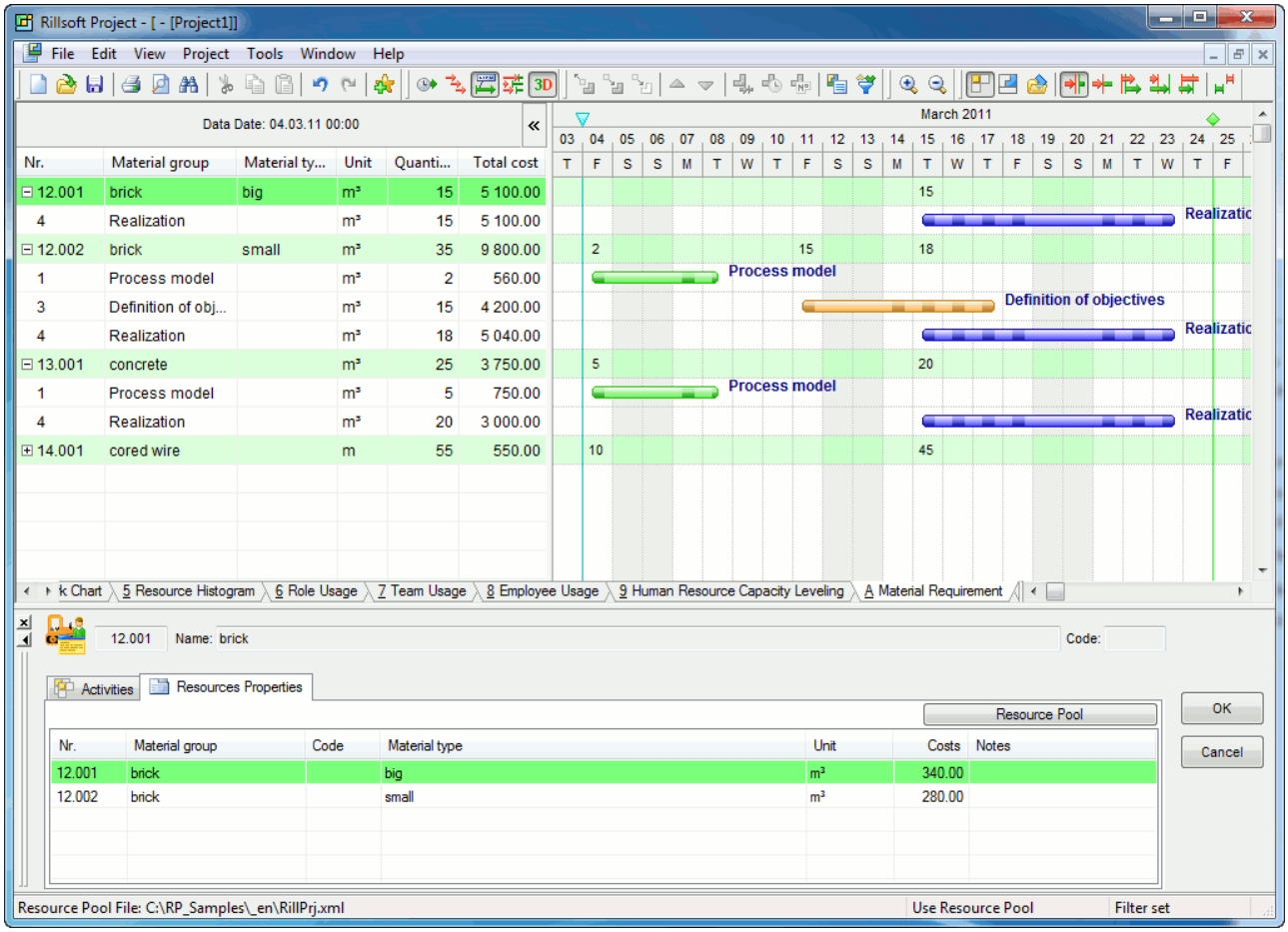
Human Resource Capacity Leveling with additional resource diagram



This view (selection via the context menu) contrasts the demand (blue and red bars) of a role / qualification with the capacity.

If you click on the required role / qualification in the table, the chart will show blue bars. They indicate the total capacity demand (per unit, such as day, week, month) of a resource. The bars are marked in blue as long as the demand for resources does not exceed the available supply.
The green line shows the available number (per unit) of employees.
If the green line (supply of employees) is above the blue bar (demand for employees), there is an excess in employees.
However, if the green line runs across a blue bar, a red bar indicates a personnel shortfall.

Material requirement



Applications for the view Material requirement:

- Display of the project's demand for materials.
- Resource allocation from the perspective of resources.
- Calculation of the total efforts for and total costs of every single material.
- Visualisation of the allocation of materials to activities.

You can use the view Material requirement for the following:

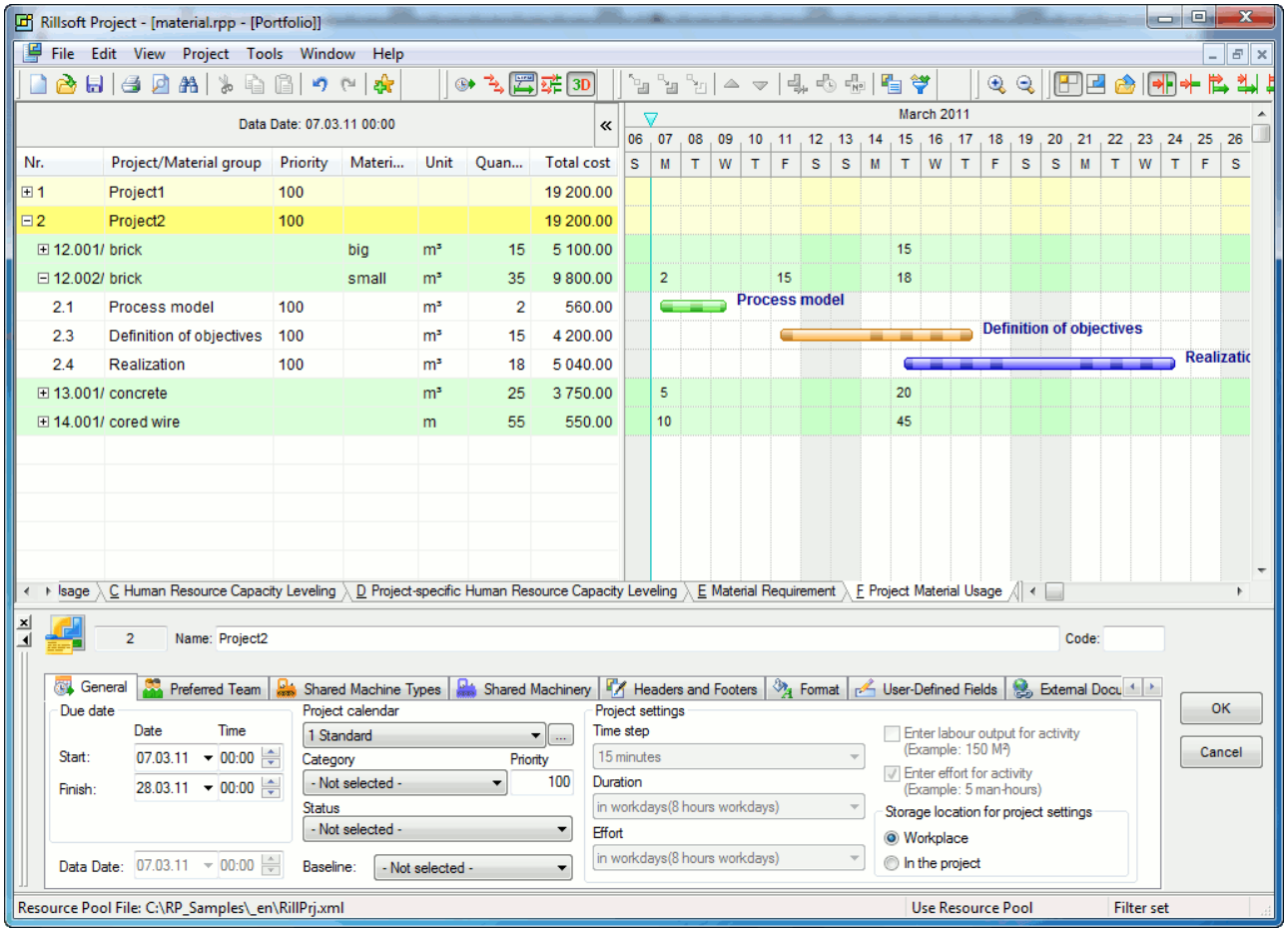
- Assign selected activities to a material.
- Analyse the material requirements by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.

Context menu in the view Material requirement

- **Expand/collapse all materials** – Depending on the preferred view, you can expand/collapse all materials.
- **Display in reference to subprojects** - The requirements of materials is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Sort materials** – All displayed materials can be sorted along number, name or code.
- **Place activities in one row, if possible** - Displays the activities entered for a material in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.

- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Material requirement.

Project-specific material requirement



Applications for the view Project-specific material requirement:

- Assign selected activities to a material.
- Project-specific display of the demand for materials.
- Resource allocation from the perspective of resources.
- Project-specific calculation of the total efforts for and total costs of every single material.
- Visualisation of the allocation of materials to activities.

You can use the view Project-specific material requirement for the following:

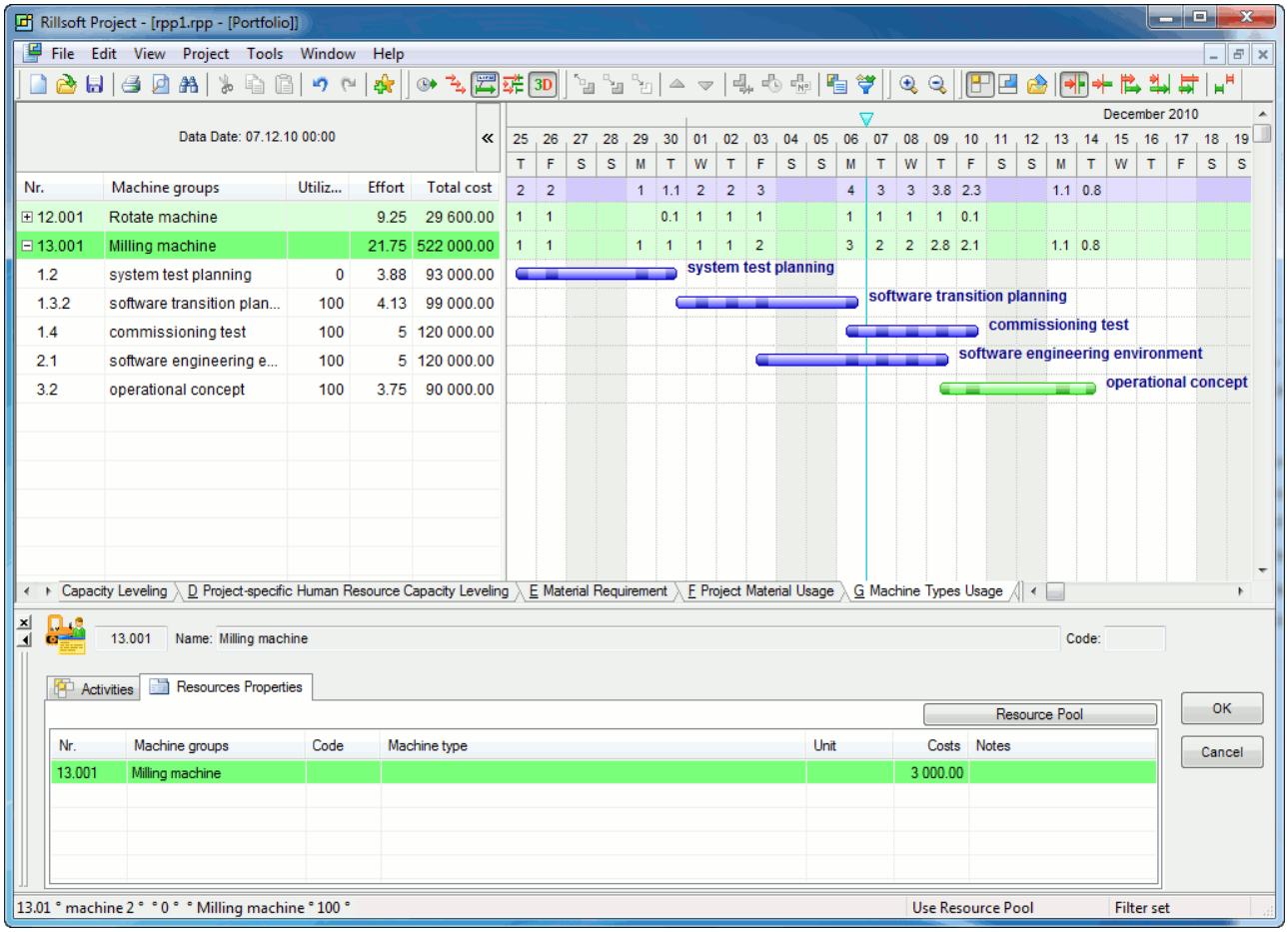
- Project-specific analysis of the material requirements by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.

Context menu in the view Project-specific material requirement

- **Expand/collapse all materials** – Depending on the preferred view, you can expand/collapse all materials.
- **Display in reference to subprojects** - The requirements of materials is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Sort materials** – All displayed materials can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.

- **Place activities in one row, if possible** - Displays the activities entered for a material in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Material requirement.

Machine types Usage



Applications for the view Machine Types Usage:

- Display of the project's demand for machine types.
- Ressource allocation from the perspective of machine types.
- Calculation of the load for every single machine type.
- Calculation of the total efforts for and total costs of every single machine type.
- Visualisation of the allocation of machine types in activities.

You can use the view Machine types Usagefor the following:

- Assign selected activities to a machine type.
- Analyse the load of a machine type by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.

Context menu in the view Machine types

If you open the context menu on the **Machine types row**, the following commands appear:

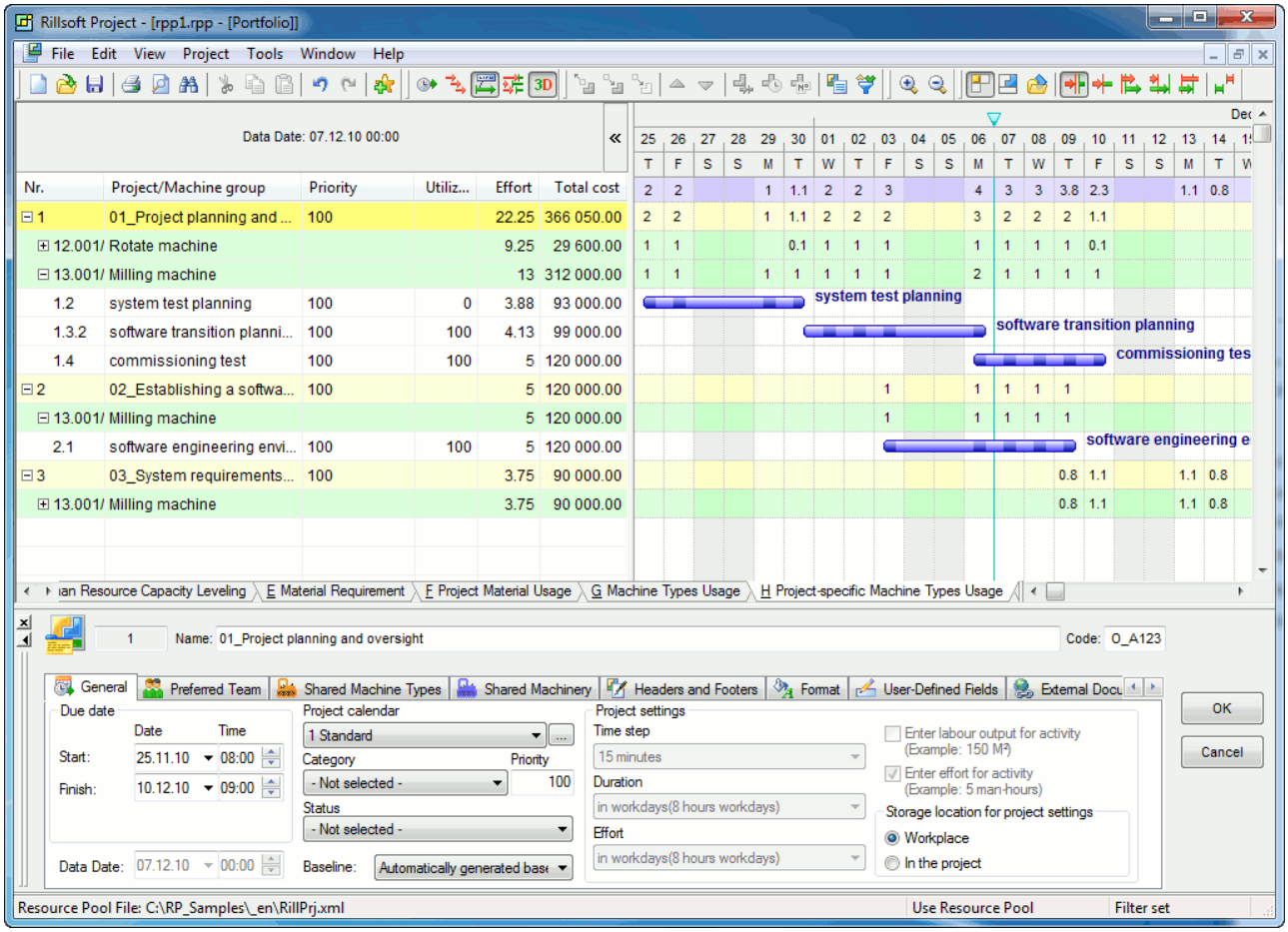
- **Expand/collapse all machine types** – Depending on the preferred view, you can expand/collapse all machine types.
- **Show maximum per time unit** – The maximum required number of machine resources for each of the machine groups - machine types per day, week, etc.
- **Show average per time unit** – The average required number of machine type resources per day, week, etc.

- **Show effort per time unit** – Planned effort in machine hours (or days, respectively) per day, week, etc.
- **Group by machine type** – Presents the machine types belonging to a machine group in one row with total load.
- **Place activities in one row, if possible** - Displays the activities entered for a machine type in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.
- **Display in reference to subprojects** - The loads of machine types is not shown for the overall project, but for each of the subprojects seperately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Sort machine types** – All displayed machine types can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Unhide total load** - Total load for all machine types in the project per day, week, etc.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the window Machine Types.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Machine Types.

If you open the context menu in the **Activity row**, the command **Group** is not shown, but the following commands are available:

- **Share** - The selected activity shares the machine type together with other activities.
- **Use exclusively** - The selected activity uses the machine type exclusively.

Project-specific machine types Usage



Applications for the view Project-specific machine types:

- Display of the demand for machine types per project.
- Ressource allocation from the perspective of machine types.
- Project-specific calculation of the load for every single machine type .
- Project-specific calculation of the total efforts for and total costs of every single machine type.
- Project-specific visualisation of the allocation of machine types in activities.

You can use the view Project-specific machine types Usagefor the following:

- Assign selected activities to a machine type.
- Analyse the load of a machine type for each of the projects by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.

Context menu in the view Project-specific machine types Usage

If you open the context menu on the **Machine types Usage**, the following commands appear:

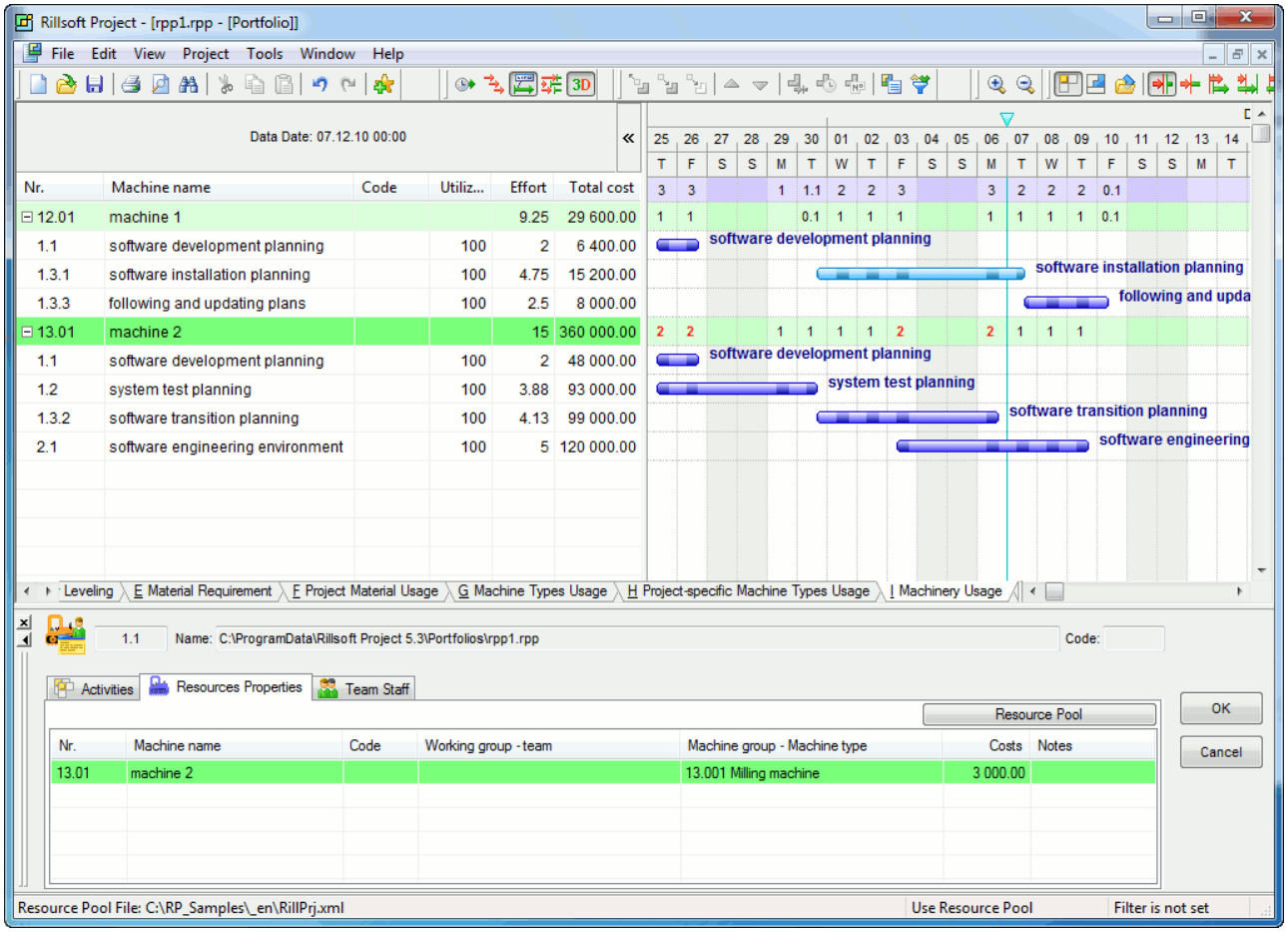
- **Expand/collapse all machine types** – Depending on the preferred view, you can expand/collapse all machine types.
- **Show maximum per time unit** – The maximum required number of machine resources for each of the machine groups - machine types per day, week, etc.

- **Show average per time unit** – The average required number of machine type resources per day, week, etc.
- **Show effort per time unit** – Planned effort in machine hours (or days, respectively) per day, week, etc.
- **Group by machine type** – Presents the machine types belonging to a machine group in one row with total load.
- **Place activities in one row, if possible** - Displays the activities entered for a machine type in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.
- **Display in reference to subprojects** - The loads of machine types is not shown for the overall project, but for each of the subprojects seperately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Sort machine types** – All displayed machine types can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Unhide total load** - Total load for all machine types in the project per day, week, etc.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the window Machine Types.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Machine Types.

If you open the context menu in the **Activity row**, the command **Group** is not shown, but the following commands are available:

- **Share** - The selected activity shares the machine type together with other activities.
- **Use exclusively** - The selected activity uses the machine type exclusively.

Machinery Usage



Applications for the view Machinery Usage:

- Display of the project's demand for machines.
- Ressource allocation from the perspective of machines.
- Calculation of the load of every single machine.
- Calculation of the total efforts for and total costs of every single machine.
- Visualisation of the allocation of machines in activities.

You can use the view Machinery Usage for the following:

- Assign selected activities to a machine.
- Analyse the load of a machine by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.

Context menu in the view Machinery Usage

If you open the context menu on the **Machine row**, the following commands appear:

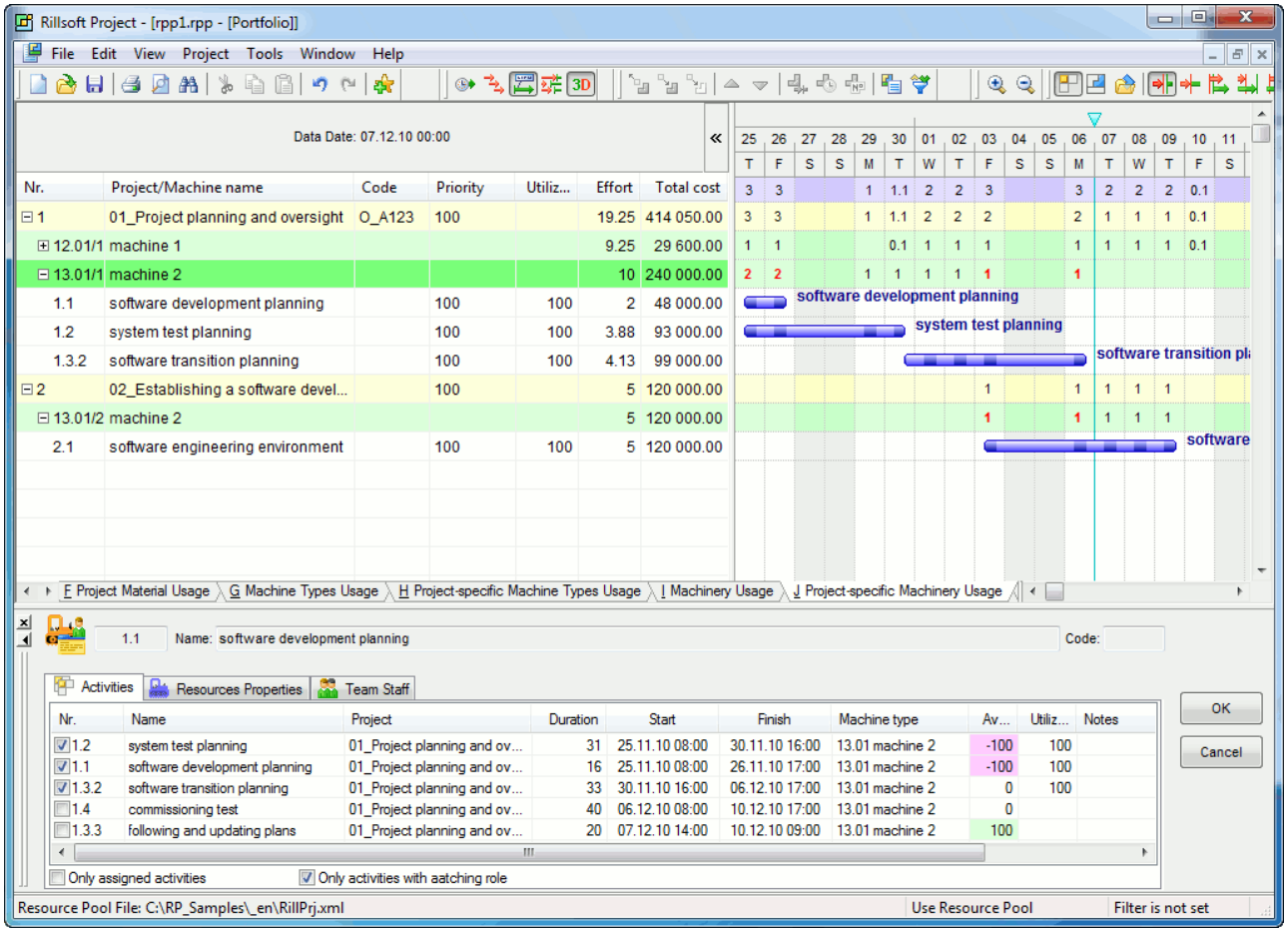
- **Expand/collapse all resources** – Depending on the preferred view, you can expand/collapse all resources.
- **Show maximum per time unit** – The maximum required number of machine resources for each of the machine groups - machine types per day, week, etc.
- **Show average per time unit** – The average required number of machine resources per day, week, etc.

- **Show effort per time unit** – Planned effort in machine hours (or machine days, respectively) per day, week, etc.
- **Group by machines** – Presents the machine types belonging to a machine group in one row with total load.
- **Place activities in one row, if possible** - Displays the activities entered for a machine in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.
- **Display in reference to subprojects** - The loads of machines is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Sort machines** – All displayed machines can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Unhide total load** - Total load for all machines in the project per day, week, etc.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the window Machinery.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Machinery.

If you open the context menu on the **Activity row**, the following commands appear:

- **Use commonly** - The selected activity shares the machine with other activities.
- **Use exclusively** - The selected activity uses the machine exclusively.

Project-specific machinery Usage



Applications for the view Project-specific machinery Usage:

- Assign selected activities to a machine.
- Display of the portfolio's demand for machines per project.
- Display of the project's demand for machines.
- Calculation of the load of every single machine.
- Calculation of the total efforts for and total costs of every single machine.
- Visualisation of the allocation of machines in activities.

You can use the view Project-specific machinery Usagefor the following:

- Analyse the load of a machine by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.

Context menu in the view Project-specific machinery Usage

If you open the context menu on the **Machinery row**, the following commands appear:

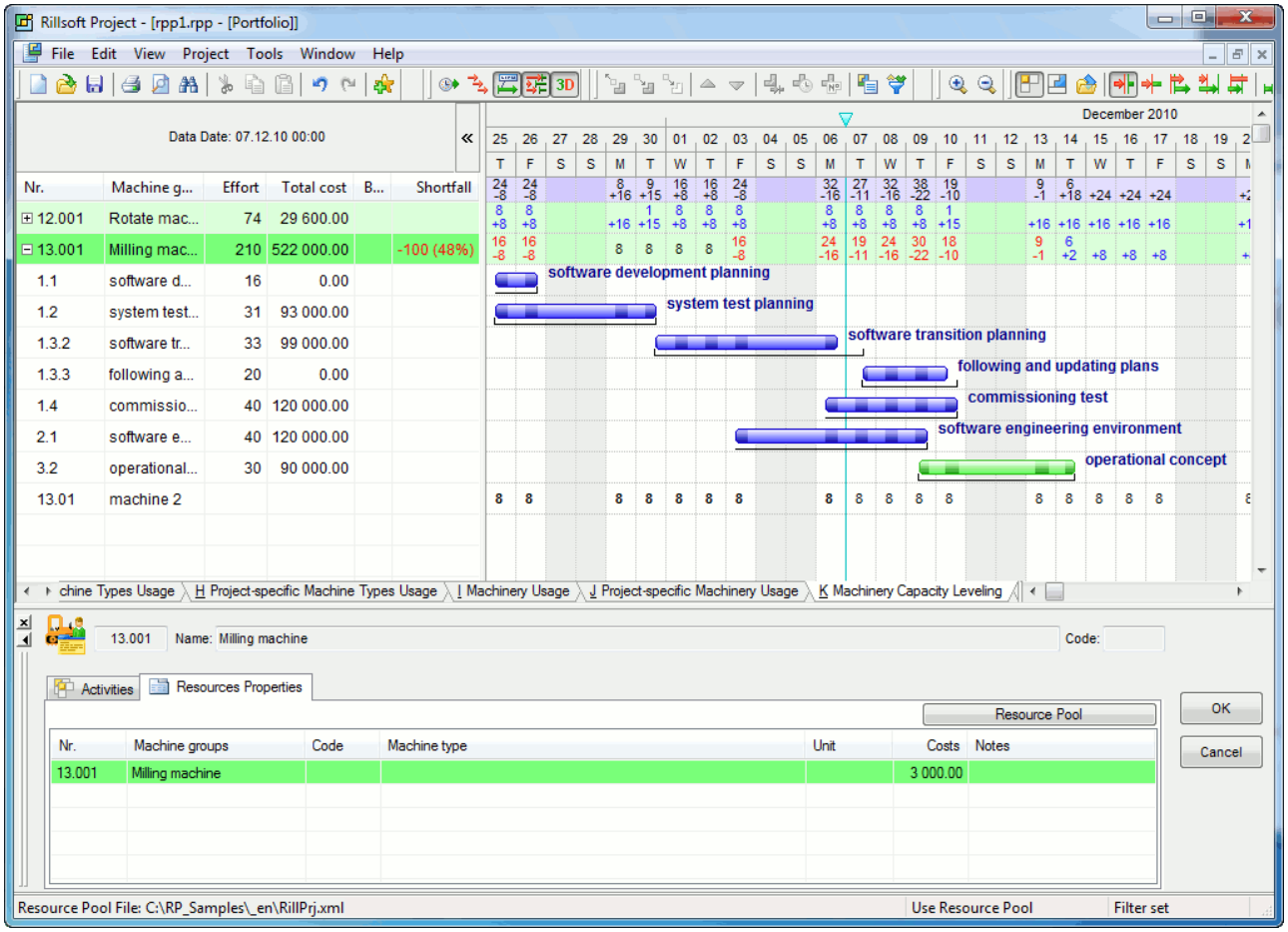
- **Expand/collapse all resources** – Depending on the preferred view, you can expand/collapse all resources.
- **Show maximum per time unit** – The maximum required number of machine resources for each of the machine groups - machine types per day, week, etc.
- **Show average per time unit** – The average required number of machine resources per day, week, etc.

- **Show effort per time unit** – Planned effort in machine hours (or machine days, respectively) per day, week, etc.
- **Group by machines** – Presents the machine types belonging to a machine group in one row with total load.
- **Place activities in one row, if possible** - Displays the activities entered for a machine in one row, if possible.
  For better presentation, activities overlapping in time are shown in separate rows.
- **Display in reference to subprojects** - The loads of machines is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Sort machines** – All displayed machines can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Unhide total load** - Total load for all machines in the project per day, week, etc.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the window Machinery.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Machinery.

If you open the context menu on the **Activity row**, the following commands appear:

- **Use commonly** - The selected activity shares the machine with other activities.
- **Use exclusively** - The selected activity uses the machine exclusively.

Capacity alignment machines



Applications for the view Capacity alignment machines:

- Display of the project's demand for machines.
- Calculation of the load of every single machine.
- Calculation of the total efforts for and total costs of every single machine.
- Visualisation of the allocation of machines in activities.

You can use the view Capacity alignment machines for the following:

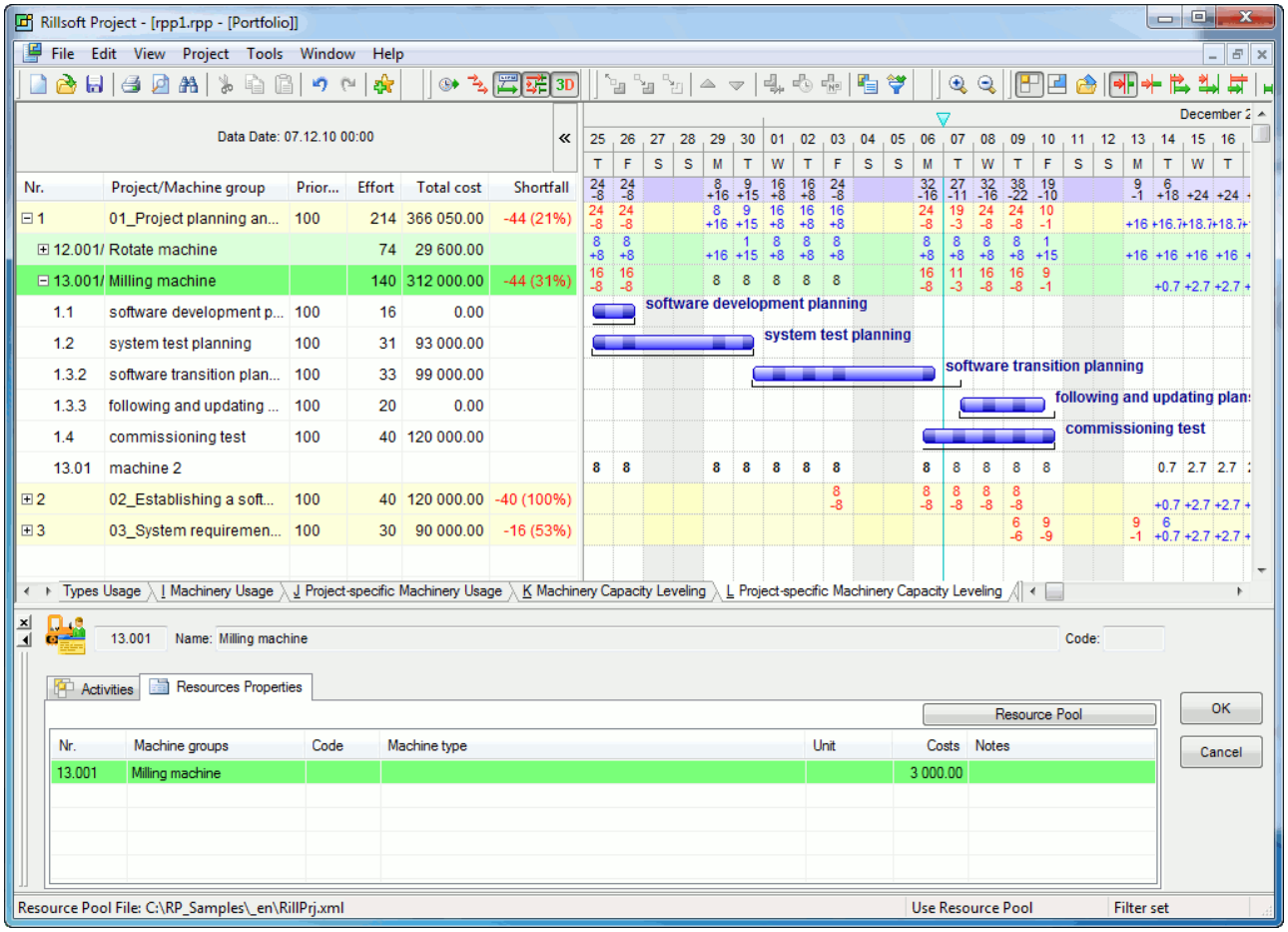
- Analyse the load of a machine by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.

Context menu in the view Capacity alignment machines

- **Expand/collapse all resources** – Depending on the preferred view, you can expand/collapse all resources.
- **Show maximum per time unit** – The maximum required number of machine resources for each of the roles / qualifications per day, week, etc.
- **Show effort per time unit** – Planned effort in machine hours (or machine days, respectively) per day, week, etc.
- **Group by machine type** – Presents the machine types belonging to a machine group in one row with total load.
- **Display in reference to subprojects** - The loads of machines is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.

- **Unhide activities** – Shows all activities to whom machines were assigned in the diagram field.
- **Unhide machines** - Shows all machines of this machine type in the resource list.
- **Sort machines** – All displayed machines can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the window Machinery.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Machinery.

Project-specific capacity alignment machines



Applications for the view Project-specific capacity alignment machines:

- Display of the portfolio's demand for machines per project.
- Calculation of the load of every single machine.
- Calculation of the total efforts for and total costs of every single machine.
- Visualisation of the allocation of machines in activities.

You can use the view Project-specific capacity alignment machines for the following:

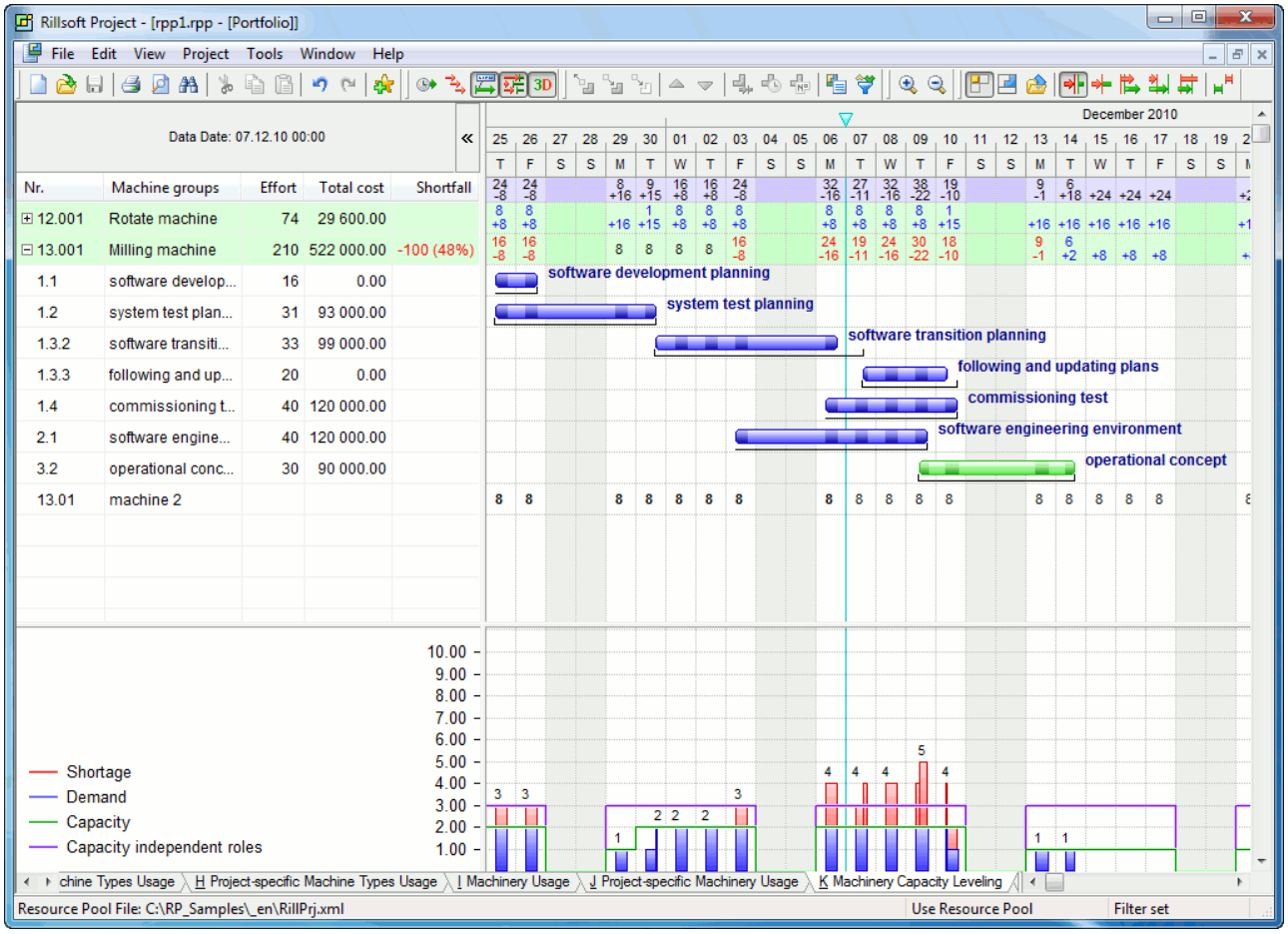
- Analyse the load of a machine by help of filter settings.
- Change the timescale.
- Quick access to the resource pool.

Context menu in the view Project-specific capacity alignment machines

- **Expand/collapse all resources** – Depending on the preferred view, you can expand/collapse all resources.
- **Show maximum per time unit** – The maximum required number of machine resources for each of the roles / qualifications per day, week, etc.
- **Show effort per time unit** – Planned effort in machine hours (or machine days, respectively) per day, week, etc.
- **Group by machine type** – Presents the machine types belonging to a machine group in one row with total load.

- **Display in reference to subprojects** - The loads of machines is not shown for the overall project, but for each of the subprojects separately. However, only those subprojects are considered that are on the level immediately below the overall project.
- **Unhide activities** – Shows all activities to whom machines were assigned in the diagram field.
- **Unhide machines** - Shows all machines of this machine type in the resource list.
- **Sort machines** – All displayed machines can be sorted along number, name or code.
- **Sort activities** – All displayed activities can be sorted along number, start date and finish date.
- **Additional resource diagram** – You can view an additional resource diagram in the lower area of the window Machinery.
- **Additional break-even chart** – You can view an additional break-even chart in the lower area of the window Machinery.

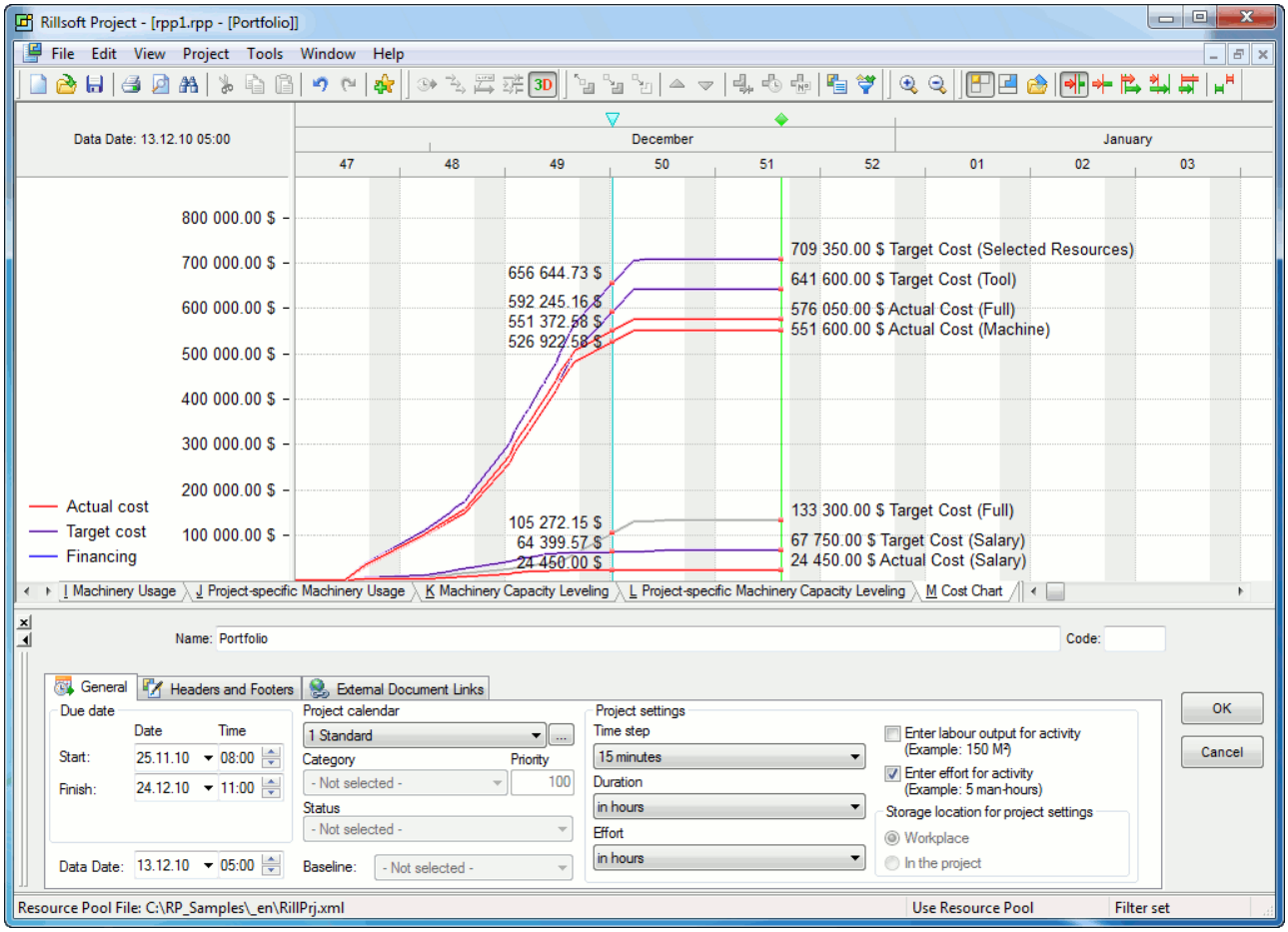
Capacity alignment for machines with additional resource diagram



This view (selection via the context menu) contrasts the demand (blue bars) for each of the machine groups / machine types with the capacity line (red).

If you click on the required machine group / machine type in the table, the chart shows the required number (per unit) of resources as bars marked blue.
The red line shows the available number (per unit) of machines.
If the red line (supply of machines) is above the blue bar (demand for machines), there is an excess in machines.
However, if the red line runs across a blue bar, you have a shortfall in machines.

Cost chart



Application of the break-even chart:

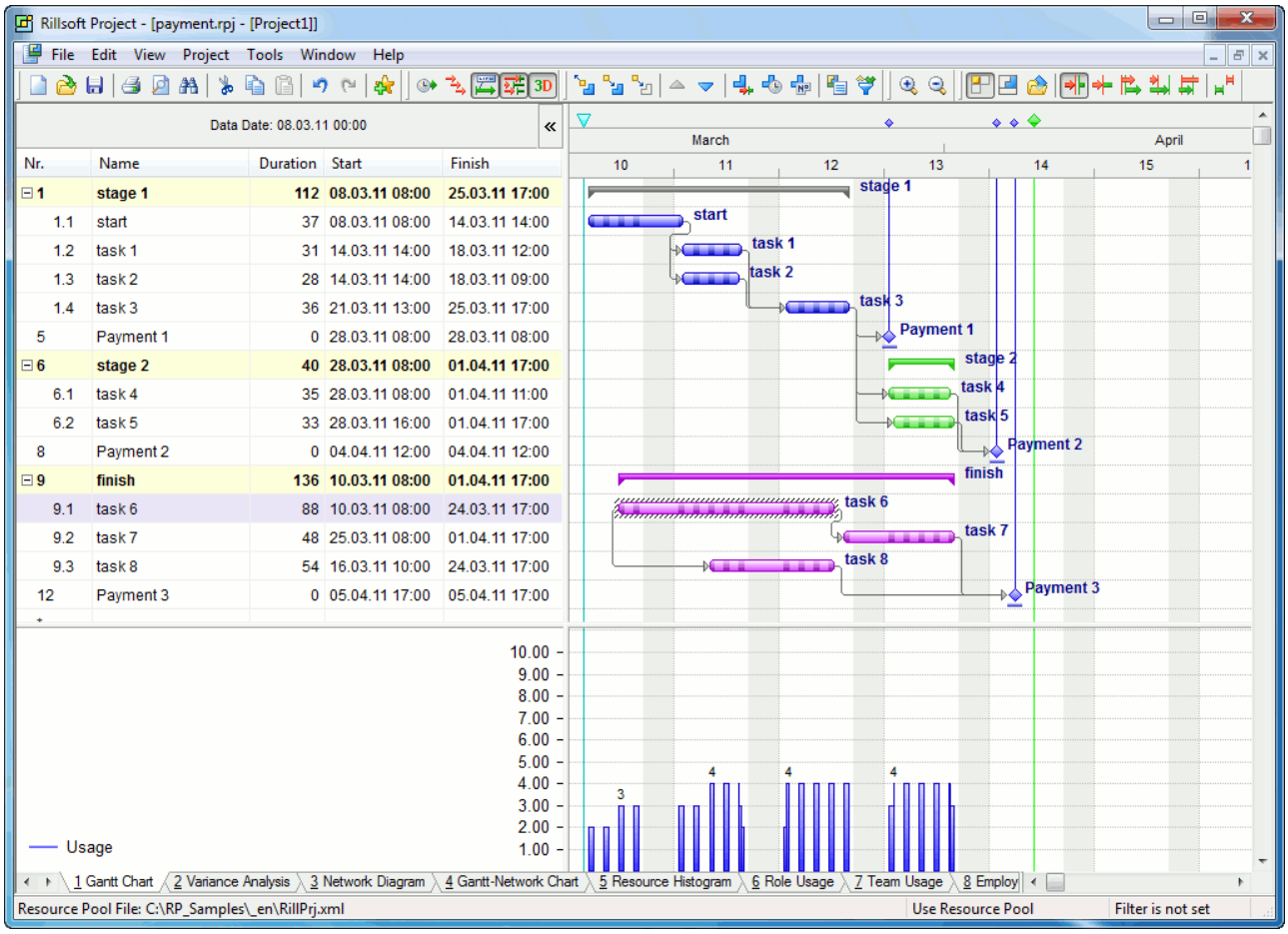
- Visualisation of the budget and actual costs.
- Visualisation of the budget and actual costs at a freely definable check time.

You can use to break-even chart for the following:

- Analyse the costs by help of filter settings.
- Change the timescale.

Additional resource diagram

Select the menu item **View / Additional resource diagram**.



Alternatively: You can open an additional diagram in the diagram field of the context menu (command: Additional resource diagram).

Application of the additional resource diagram:

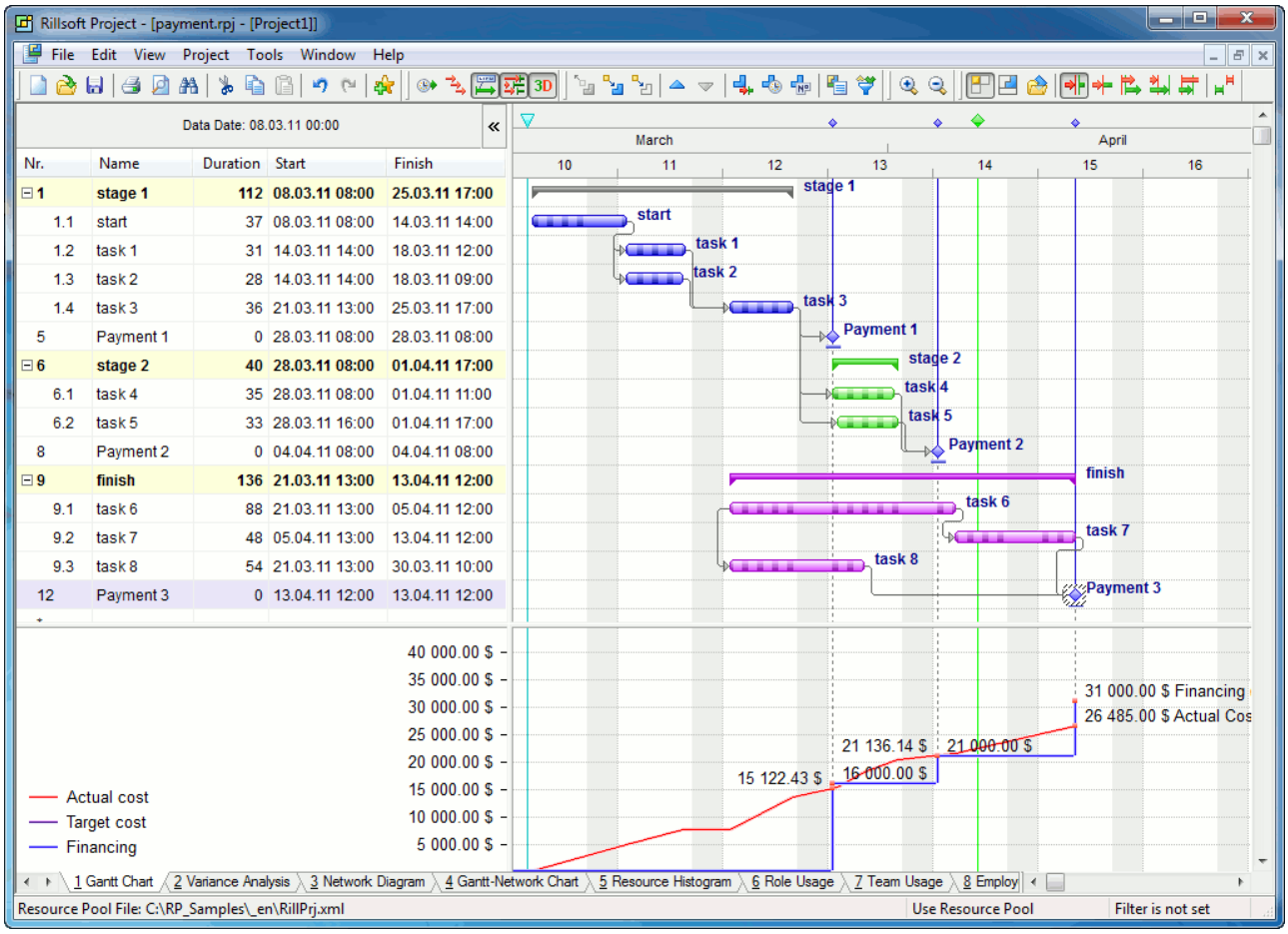
- Visualisation of of the resource utilization of a project.
- Analyse the resource utilization by help of filter settings.

You can open an additional resource diagram in the following views:

- Bar diagram
- Bar-network diagram
- Role utilization
- Team utilization
- Employee utilization
- Capacity alignment personnel
- Machine types
- Machinery
- Capacity alignment machines

Additional cost chart

Select the menu item **View / Additional break-even chart**.



Alternatively: You can open an additional chart in the diagram field of the context menu (command: Additional break-even chart).

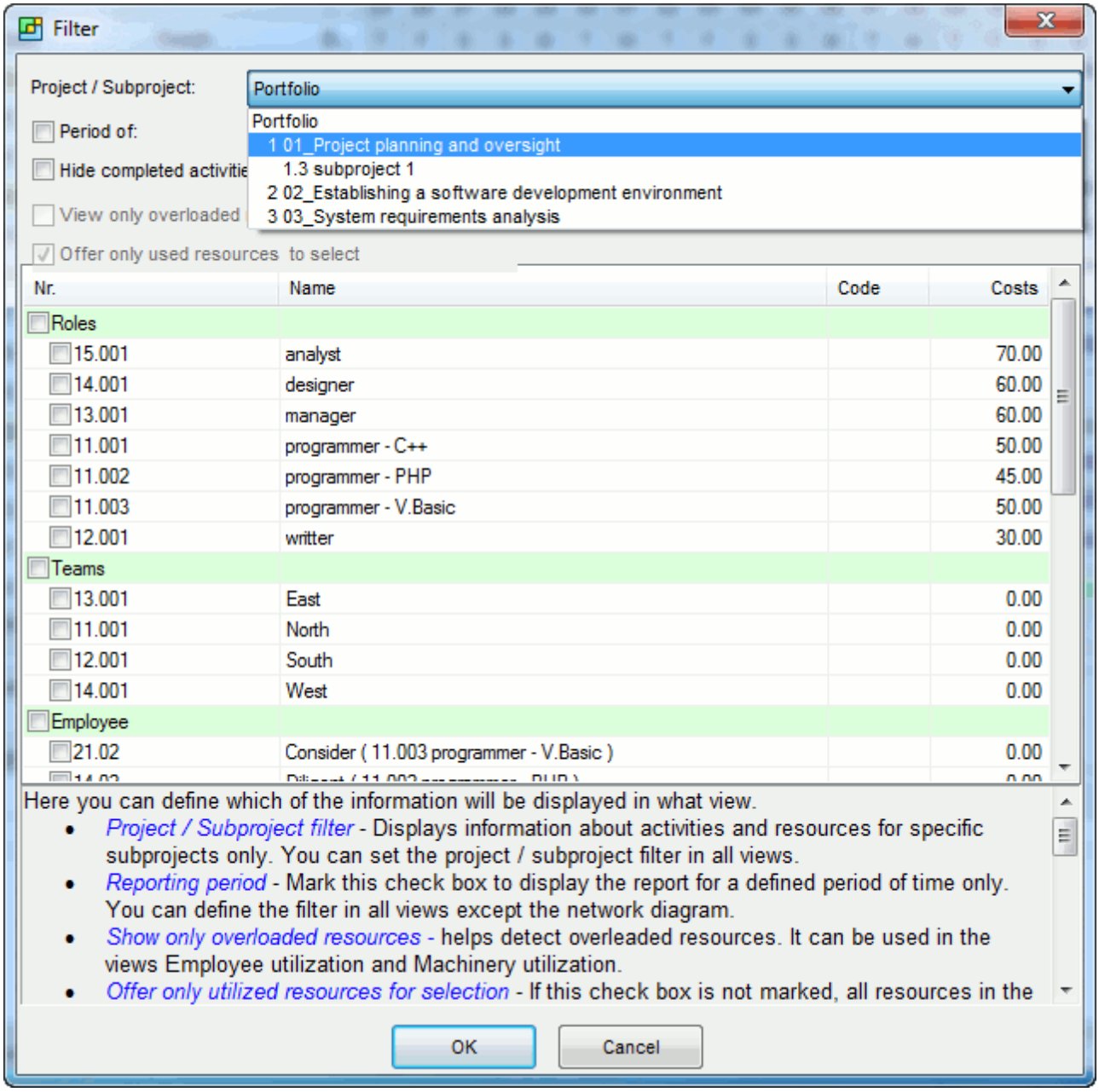
Application of the additional break-even chart:

- Visualisation of the budget and actual costs.
- Analysis of the budget and actual costs.

You can open an additional break-even chart in the following views:

- Bar diagram
- Variance analysis
- Bar-network diagram
- Resource diagram
- Role utilization
- Team utilization
- Employee utilization
- Material requirement
- Machine types
- Machinery

Filter



You can use the filter to define the information you want to have on display in the diagrams. The following filters are available:

- Project / subproject
- Reporting period filter
- Show only overloaded resources
- Offer only used resources for selection
- Role filter
- Team filter
- Employee filter
- Material filter
- Machine type filter
- Machinery filter

Determine filters

1. In the menu **Project**, select **Filter** and click on the icon button **Filter**  in the **Project bar**.
2. Mark the according check box.
3. Select the required resource from the drop down menu.
4. Click on the button **OK**.

Project / subproject filter

Displays information about activities and resources for specific subprojects only.
You can set the reporting period filter in all views.

Reporting period filter

Displays information about activities and resources for specific periods of time only.
You can set the reporting period filter with the **mouse** by pressing the left button and selecting a start date and finish date from the .
You can set the reporting period filter in all views except the Variance analysis and the Network diagram.

Show overloaded resources

The filter helps detect overloaded resources. You can use it in the views Employee utilization and Machinery.

Offer used resources for selection

If this check box is not marked, all resources in the resource pool will be available for selection. The activation of this filter makes only those resources available for selection that have already been used in this subproject / project.
This filter can be set in the views Role utilization, Team utilization, Employee utilization, Capacity alignment personnel, Material, Machine types, Machinery and Capacity alignment machinery.

Role filter

If resources are assigned to activities in the form of roles or employees, they can be included in the role filter.
You can set the role filter in the Bar diagram, Bar-network diagram, Resource diagram, Role utilization and Break-even chart.

Team filter

If resources are assigned to activities in the form of teams, they can be included in the team filter.
You can set the team filter in the Bar diagram, Bar-network diagram, Resource diagram, Team utilization and Break-even chart.

Employee filter

If resources are assigned to activities in the form of employees, they can be included in the employee filter.
You can set the employee filter in the Bar diagram, Bar-network diagram, Resource diagram, Employee utilization and Break-even chart.

Material filter

If resources are allocated to activities in the form of materials, they can be included in the material filter.
You can set the material filter in the Bar diagram, Bar-network diagram, Resource diagram, Material requirements and Break-even chart.

Machine type filter

If resources are allocated to activities in the form of machine types, they can be included in the machine type filter.
You can set the machine type filter in the Bar diagram, Bar-network diagram, Resource diagram, Machine types and Break-even chart.

Machinery filter

If resources are allocated to activities in the form of machines, they can be included in the machinery filter.
You can set the machinery filter in the Bar diagram, Bar-network diagram, Resource diagram, Machinery and Break-even chart.

Project controlling

Project controlling consists of the following:

- Entering information regarding the project progress
- Determining Data Date
- Analysing ongoing and yet-to-begin activities

Enter information about the project progress

The updating of information about a selected activity can be accomplished by entering the activity's percentage of completion at regular intervals.

In order to enter the activity's percentage of completion, do as follows:

1. Mark the activity you want to enter in the diagram.
2. Activate the tab **General** in the window Activity properties.
3. Enter the percentage into the field **Completed**.
4. Click on the button **OK**.

Alternative 1: You can enter the percentage of completion in the context menu of the activity.

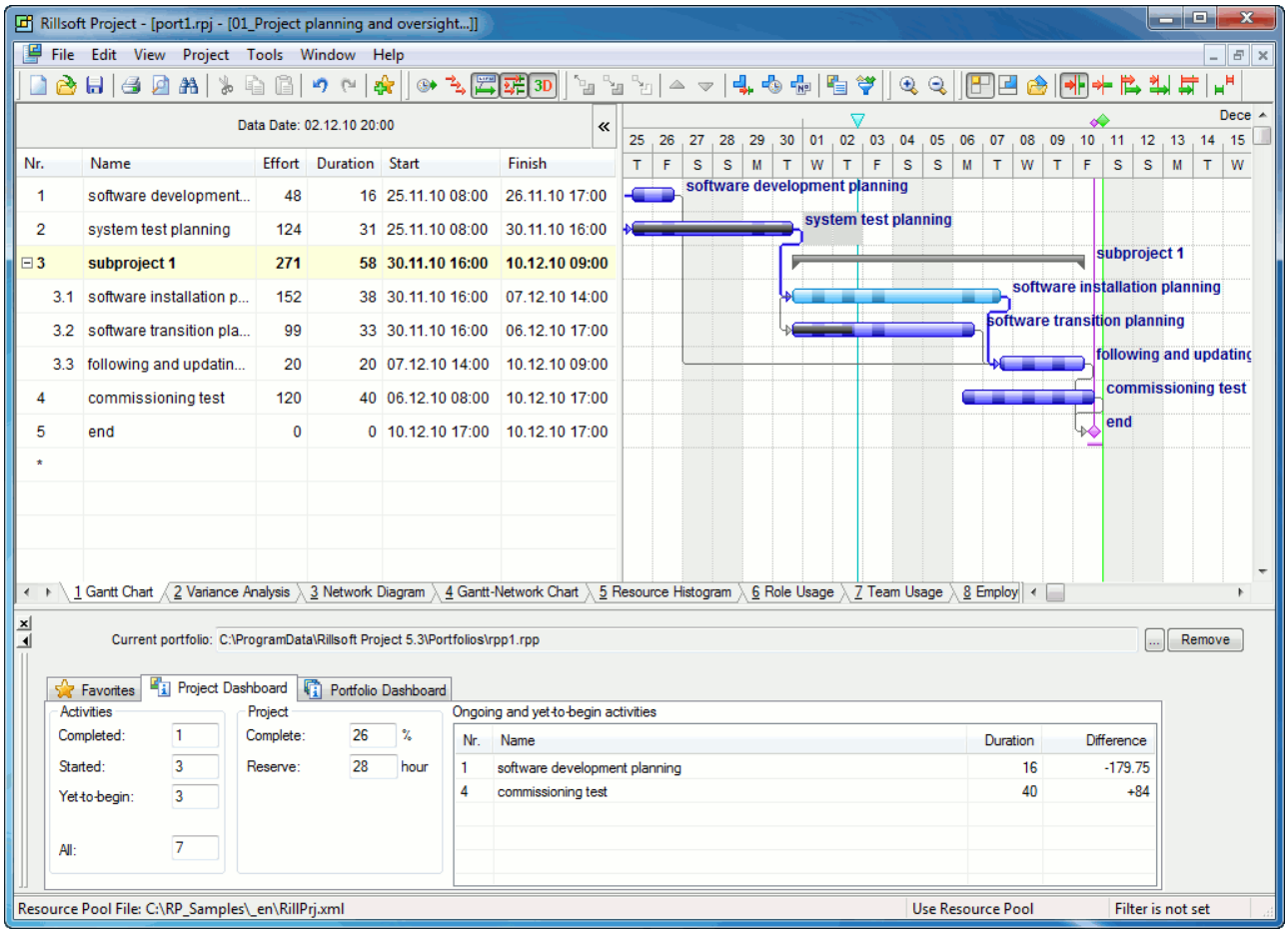
Alternative 2: You can enter the percentage of completion in the table of the bar diagram in the columns Quantity, Effort and Duration below **Completed**.

Note: If there is a number of activities linked as **Finish-Start**, and if the successor has more than 0% in the field **Completed**, its predecessor is set automatically to the value 100%.

Determine data date

An data date is the point in time at which the percentages were last entered. An data date is determined by means of a check mark (a small triangle in the upper part of the timescale).

Example: Bar diagram with determined data date and percentages (black bar in activities).



Analysis of ongoing and yet-to-begin activities

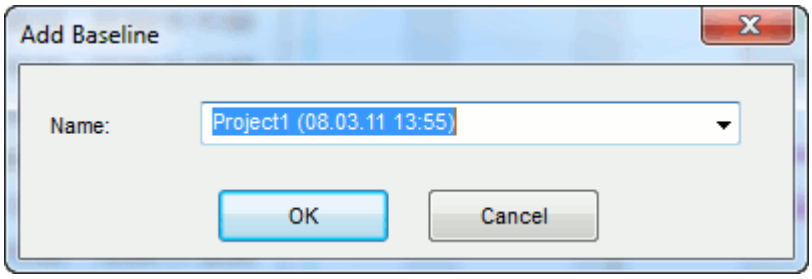
If you have entered the percentage for the selected activity and determined the check time, you have updated the information about the progress of the project. You can view the project information by clicking on the blank space in the window of the main project.

- **Finished** - Number of finished activities.
- **Started** - Number of already started activities.
- **Yet-to-begin** - Number of activities that have not yet started.
- **All** - Number of all activities.
- **Reserve** - Difference in time between the finish date of the latest activity and the deadline of the project.
- **Completed** - Percentage of the project's progress (is calculated by means of the duration of the activities only).
- **Ongoing and yet-to-begin activities** - This list shows detailed information about activities that have just started or are ready to be started.
  The column **Difference** shows the variance between the actual progress of activities and at that time and the data date (negative difference: delay / backlog, positive difference: gain of time).

Add baseline

In order to add a baseline, do as follows:

1. Select the menu item **Project / Add baseline**.
   The dialogue box **Add baseline** opens.

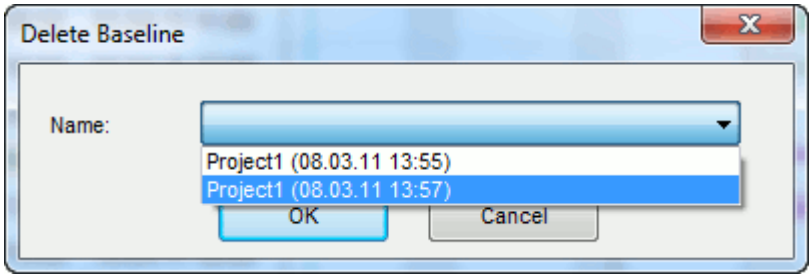


2. Enter the name of the baseline into the field **Name**.
3. Click on the button **OK**.

Delete baselines

In order to delete a baseline, do as follows:

1. Select the menu item **Project / Delete baseline**.
   The dialogue box **Delete baseline** opens.



2. Choose the baseline you want to delete from the drop down list **Name**.
3. Click on the button **OK**.

Variance analysis

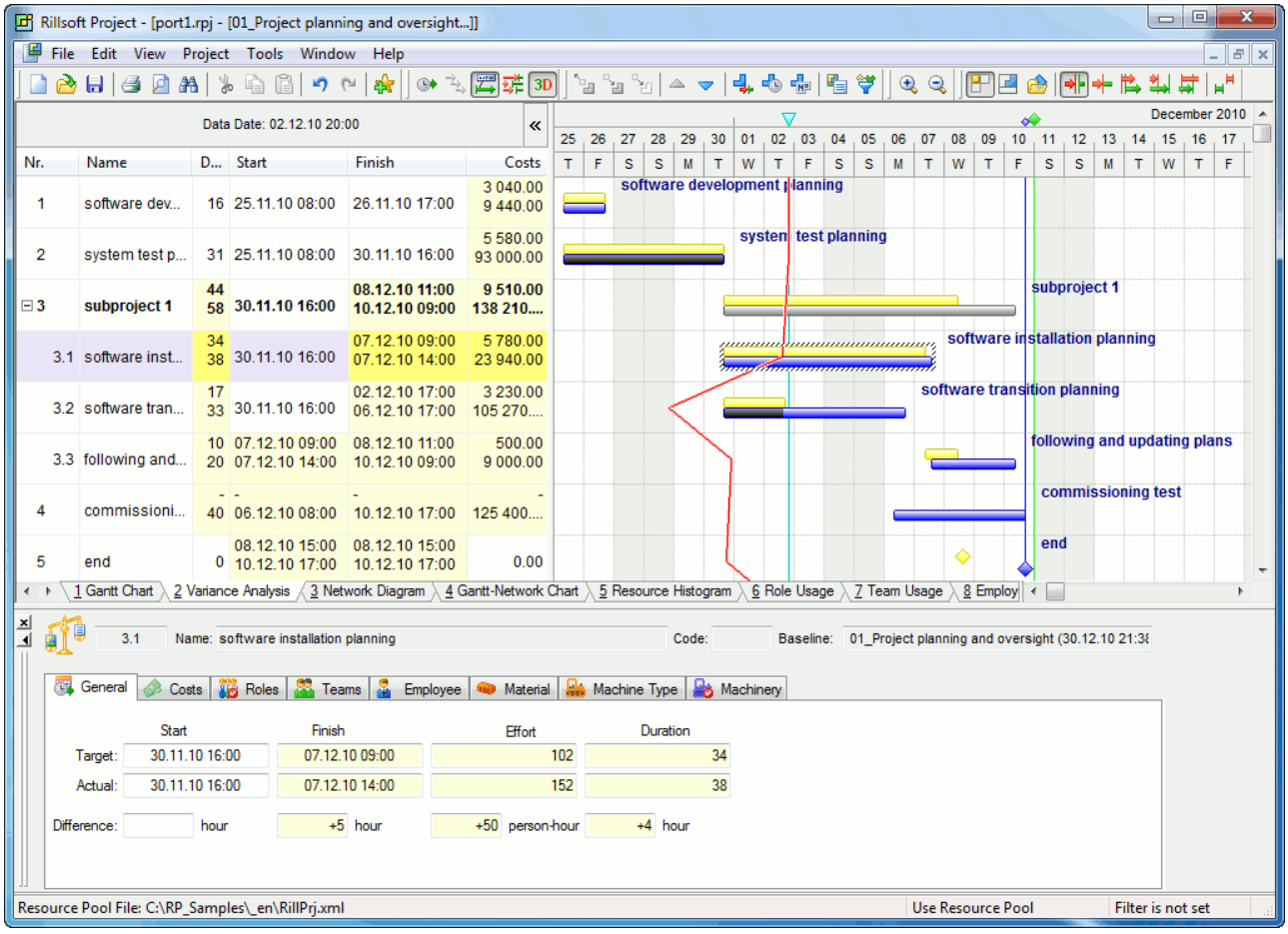
A variance analysis helps you quickly identify differences between actual and budget. The table and the diagram shows you and highlights all parameter deviations from actual and budget.

In order to do a variance analysis, do as follows:

1. Select a previously saved baseline to which the actual status of the project should be compared. Select the menu item **Project / Project properties**.
   Note: You can save any number of baselines in the project. This allows you to document your changes to the project, on the one hand, and provides you with the opportunity to analyse your project after its completion and use this information for further projects.
2. Activate the tab **General** and choose the preferred baseline from the drop down menu **Baseline**.
3. Click on the button **OK**.

   The selected baseline is being loaded for the comparison.

4. Select the menu item **View / Variance analysis**.
   The **Variance analysis** opens:



The first row in the table lists the properties of the scheduled activities and subprojects (BUDGET), while the second row lists the actual properties of the activities and subprojects. Parameter deviating from the the baseline are marked in yellow.

Note: Detailed information as to the variances can be obtained by marking the activity in the table and selecting the corresponding tabs in the window Project properties.

Progress line of the project

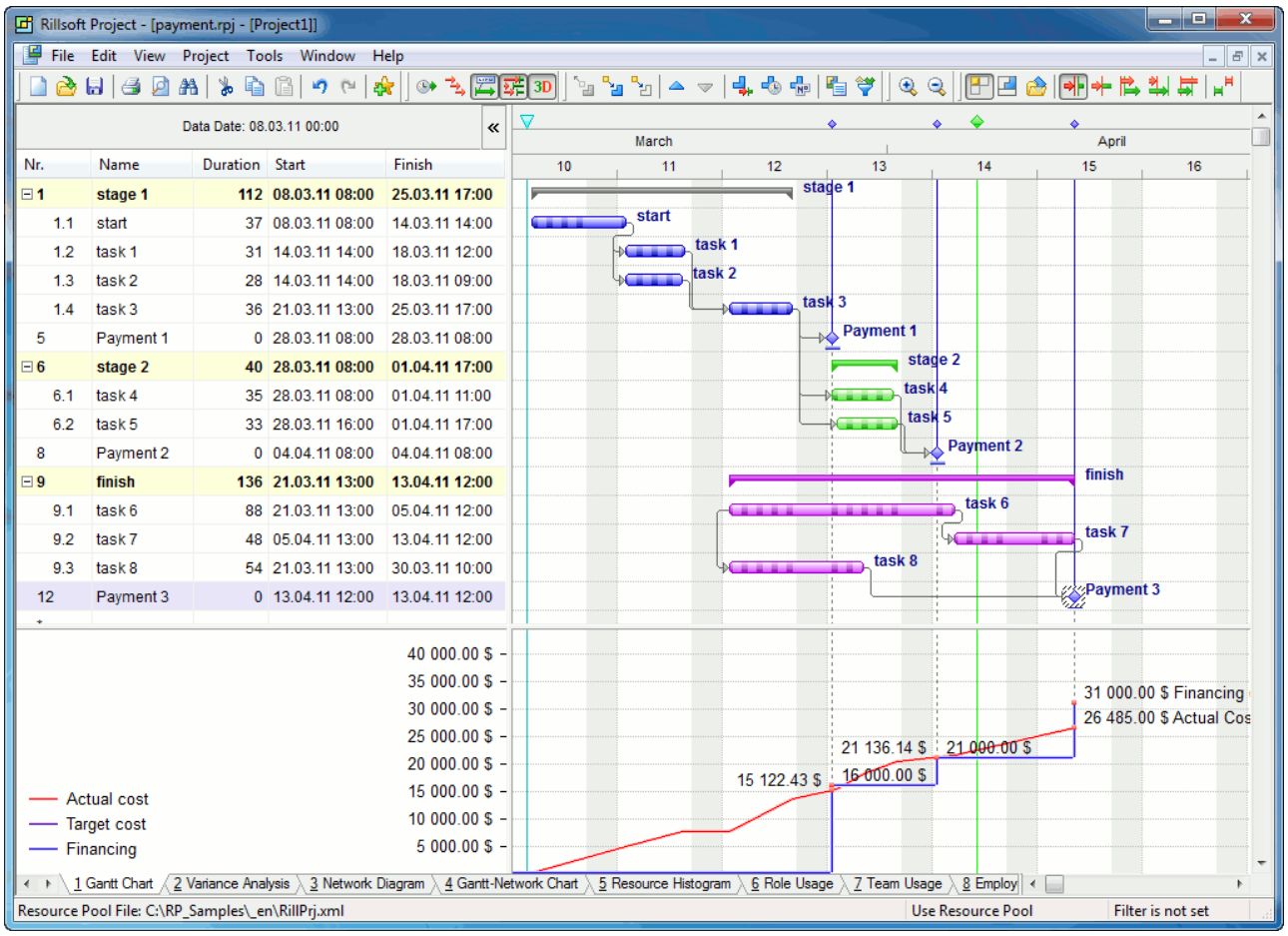
A progress line displays deviations of the due dates that ocurr between the actual project status and the selected baseline and can be looked at in the view **Variance analysis**. Ideally, a progress line accords with the highligted due dates and runs vertically across the variance analysis. A progress line running left from the due date indicates a delay in the course of the project. A progress line running right from the due date, on the other hand, indicates that some activities of the project will be completed earlier than scheduled.
In order to visualise the progress line of a project, selct one of the following menu items

- **View / Show progress line for start dates**
- **View / Show progress line for finish dates**

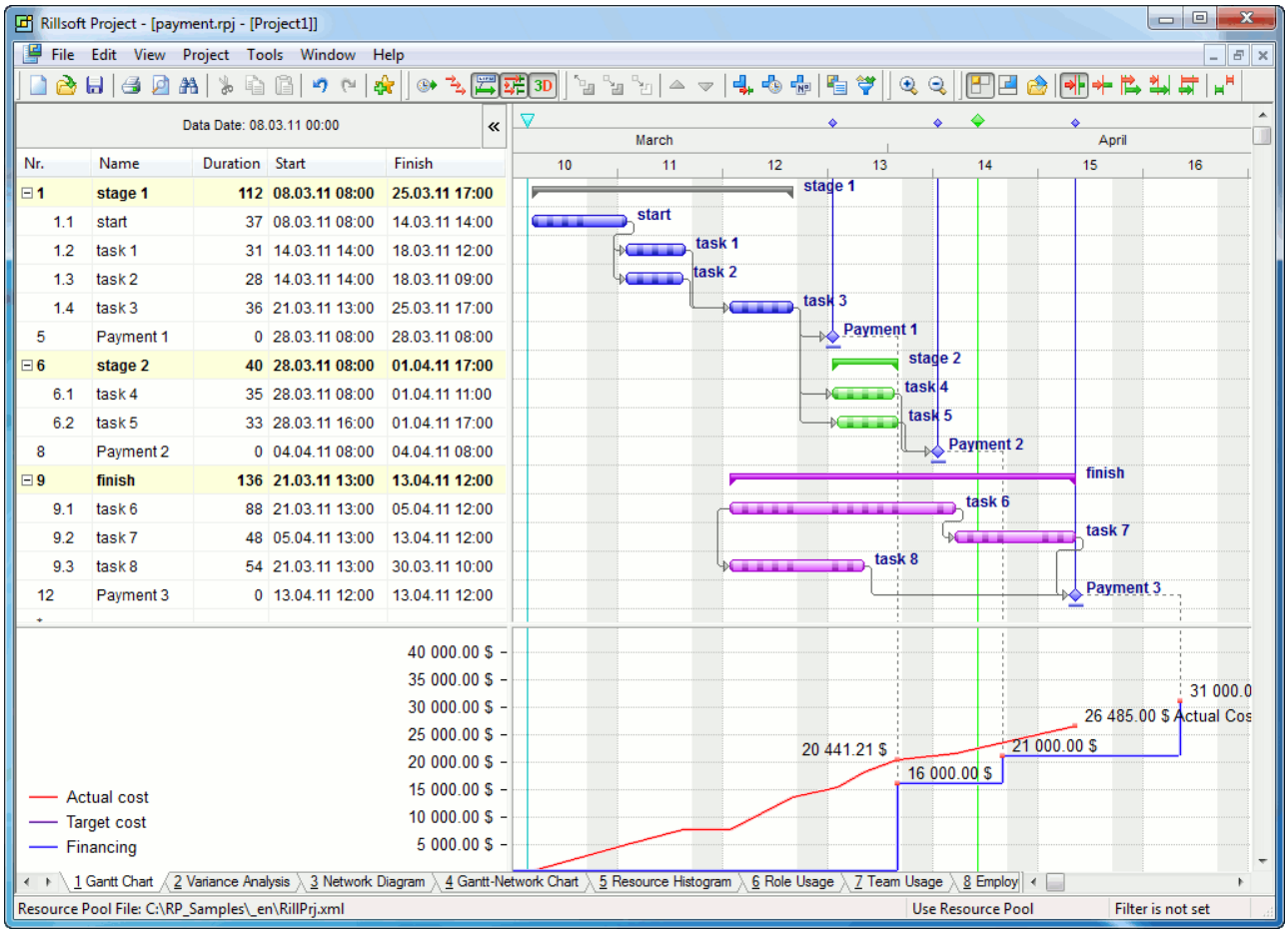
Control of project financing

In order to evaluate the financing of the project, you do as follows:

1. Open an additional break-even chart for the bar diagram in the menu item **View / Additional break-even chart**.



2. Record all expected incoming payments by setting a separate milestone at the date of invoice.
3. The break-even chart contrasts the actual costs with the financing. The the dates of invoices are marked at the curve Actual costs.
   Note: The financing can be displayed either by the dates of invoices or the payment deadline.
4. You can use the menu items **View / Show financing - date of invoice** and **Financing - payment deadline** to toggle between **View / Show financing - date of invoice** and **Financing - payment deadline**.



5. Similar to the date of invoice, the dates that are identical with the payment deadline are highlighted at the curve Actual cost.

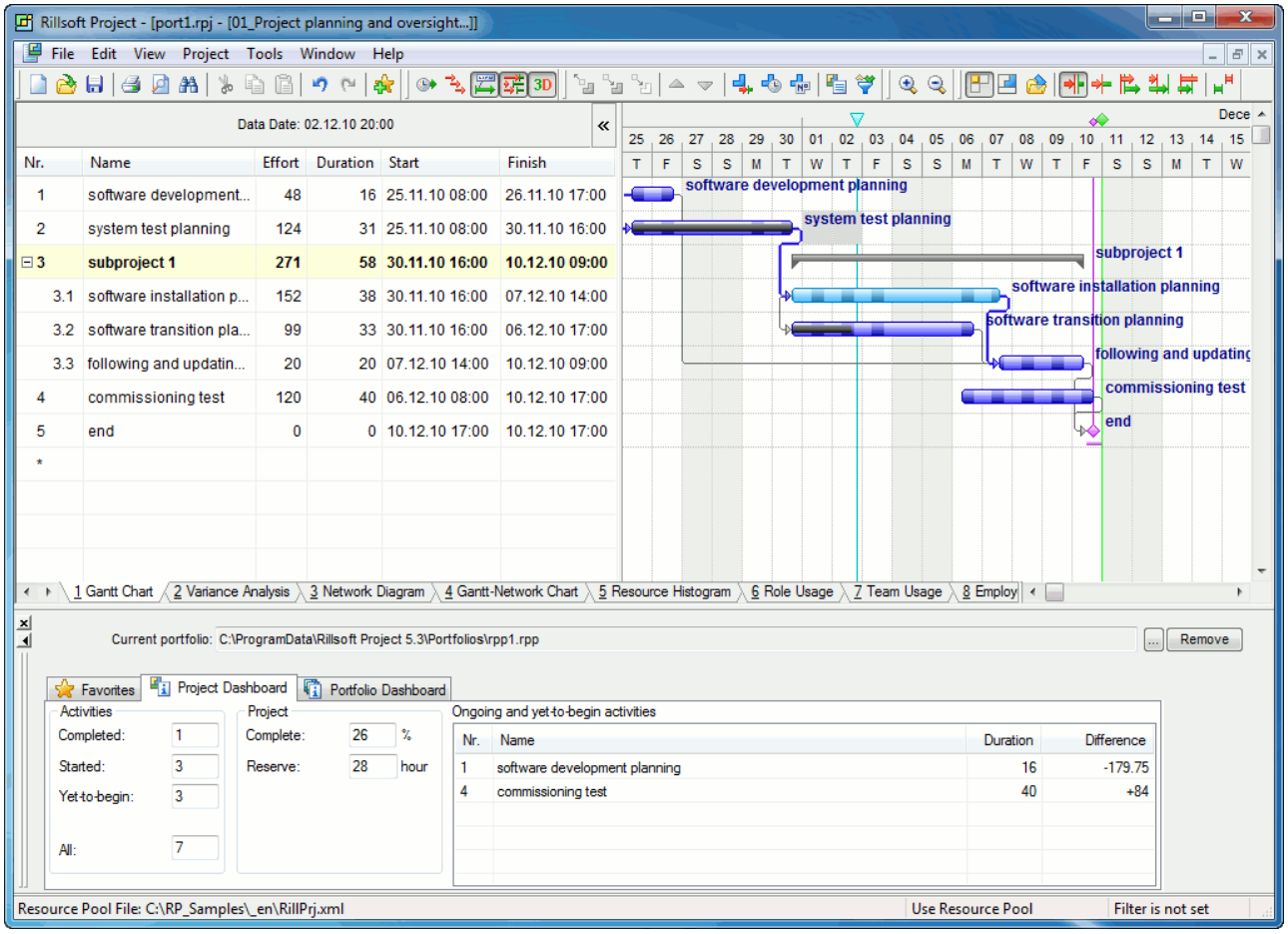
The financing control allows you therefore to detect risks in investments (advance financing).

Project management

You can use Rillsoft Project 5.2 for the following tasks, so as to accomplish the successful completion of your project targets or even exceed them and prevent the schedule from getting delayed or, at least, cushion the consequences of possible risks:

- separating completed from yet-to-begin activities.
- shifting delayed activities to the due date (current date).
- assigning or reassigning employees to and from activities in the ongoing project.
- assigning personnel to critical activities, so as to speed up execution.
- optimising resource utilization of not yet completed activities of the project.

A sample of a project before being updated



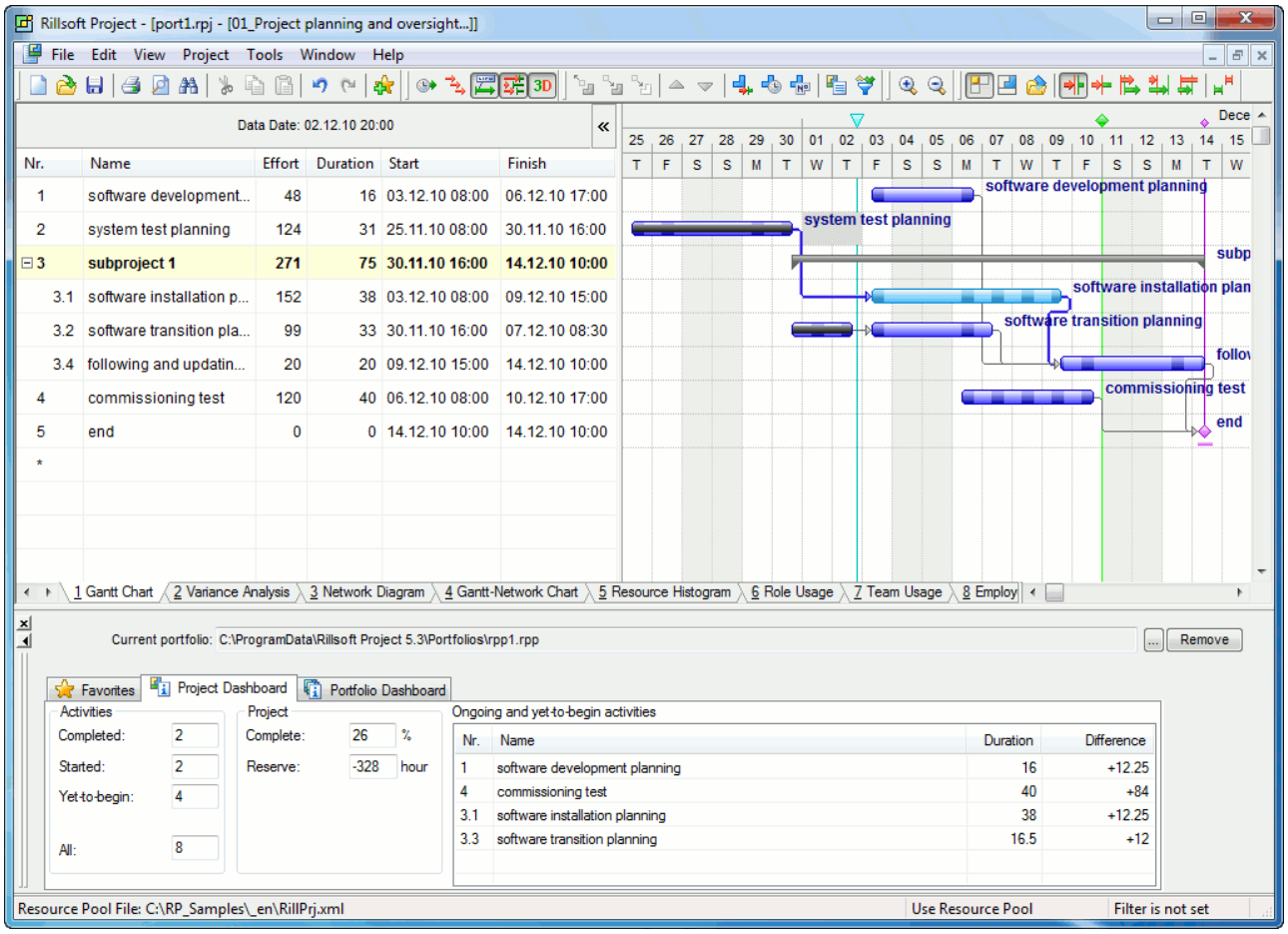
Separation of completed from yet-to-begin activities

1. Rightclick on the activity and select from the context menu the command **Split / From completed part** .

Shift delayed activities to the due date (current date)

1. Set the due date.
2. Enter the percentages of completion of all activities.
3. Select the menu item **Project / Shift activities to due date**.

A sample of a project after being updated



Assignation or reassignation of employees to and from activities in the ongoing project

1. Mark the activity.
2. Activate the tab **Employees** in the window **Object properties**.
3. Remove the employee from the activity.
4. Click on the button **OK**.

Alternatively: You can remove an employee from several activities at a time. Select the menu item **Project / Reassign employees from activities**.

Assignation of personnel to critical activities, so as to speed up execution

1. Mark the critical activity.
2. Activate the tab **Employees** in the window **Object properties**.
3. Assign more employees to the activity.
4. Click on the button **OK**.

Optimise resource utilization of not yet completed activities of the project

1. Set the due date.
2. Enter the percentages of completion of all activities.
3. Select the menu item **Project / Optimise resource utilization**.

Note: Delayed activities will be automatically shifted to the due date during the optimisation of resource utilization.

Identify resources

Rillsoft Project provides two types of resources:

- **Resource pool** - A total list of resources that can be allocated to project activities. Resource pools can be used for one or several projects.
- **Project resources** - Resources that can be used for one project only.

Resources are: roles, teams, employees, tamngible means, materials and mchines that can be assigned / allocated to a project for the execution of activities.

Ressource pool or project resources?

In general, if you open Rillsoft Project, the resource pool is active.

Name and path of the current resource pool file is shown in the left corner of the status bar. The right corner of the status bar indicates whether you use a resource pool or project resource for the opened project.

Caution: If during the opening of the project the resources used by this projects differs from the resource pool, the program switches automatically from the resource pool to the project resources.

For manual toggling between resource pool and project resources, there are two commands in the menu bar:

- Project / Shift to resource pool
- Project / Shift to project resources

If, for instance, the project resources are active, the menu item **Project / Shift to project resources** is not available.

Shift project resources to resource pool

If the project resources match the resource pool, users do not recognize the shifting from one to the other resource.
The shifting to project resources does not require the user to take any additional action.
If, during the shifting process to the resource pool, there are differences between project resources and resource pool, the program issues a list with the deviations. Then, you can choose between using project resources and resource pool.

Creating and adjusting resources

In order to create resources in the resource pool, select the menu item **Tools / Resource pool**.
In order to create and adjust project resources, select the menu item **Tools / Project resources**.

Here, you can:

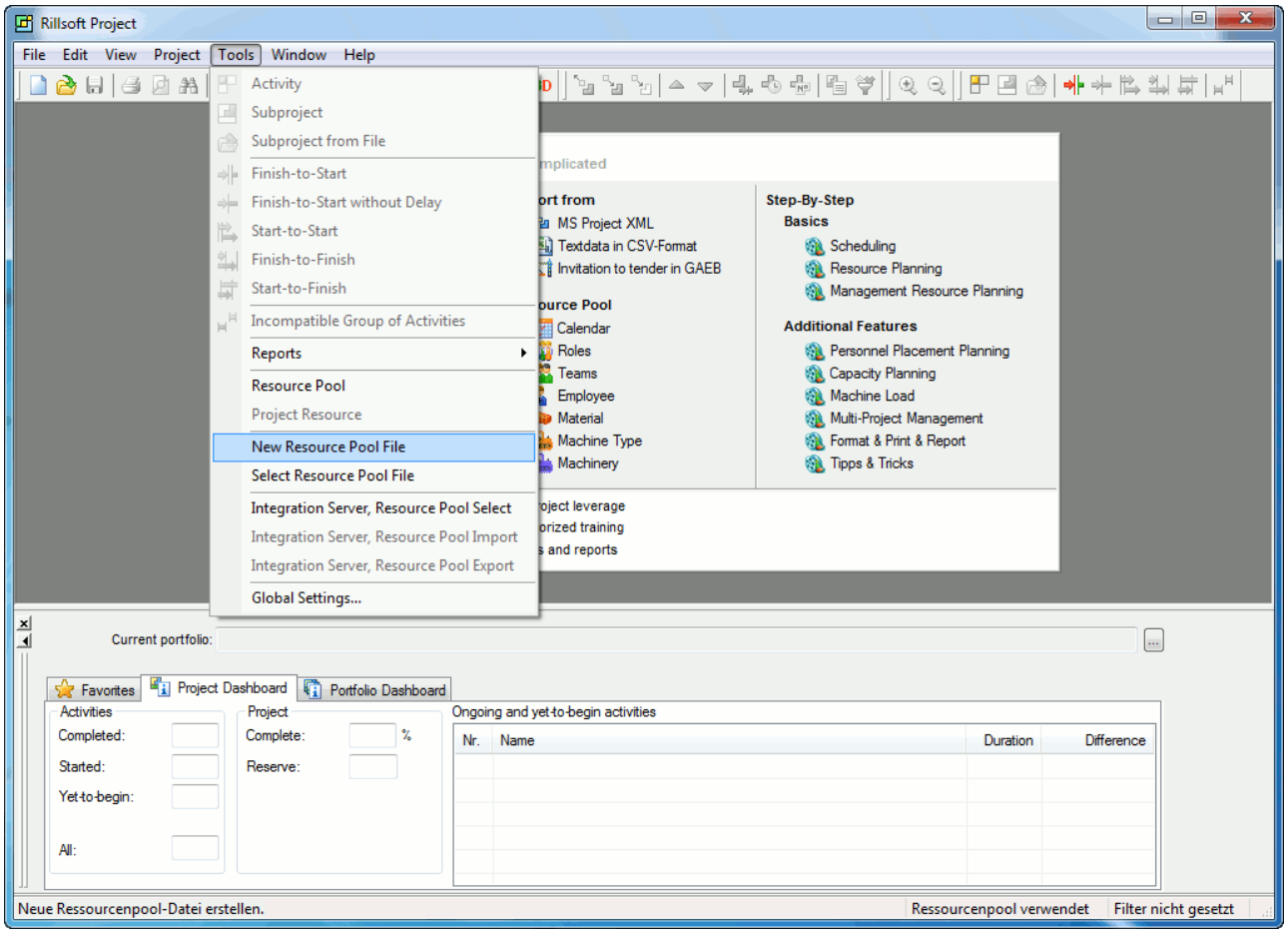
- adjust and edit existing resources
- create new resources
- import resources from a text file

Create new resource pool file

You find the resource pool in the file RillPrj.xml in the Rillsoft Project data directory.
You can create a new resource pool and define as many resource pools with the required variation as you need.

Close all projects before creating a new resource pool.

- Select the menu item **File / Close** to close all projects.
- Select the menu item **Tools / Create resource pool file**.
- Enter a name for the new file *.xml in the opening dialogue window.



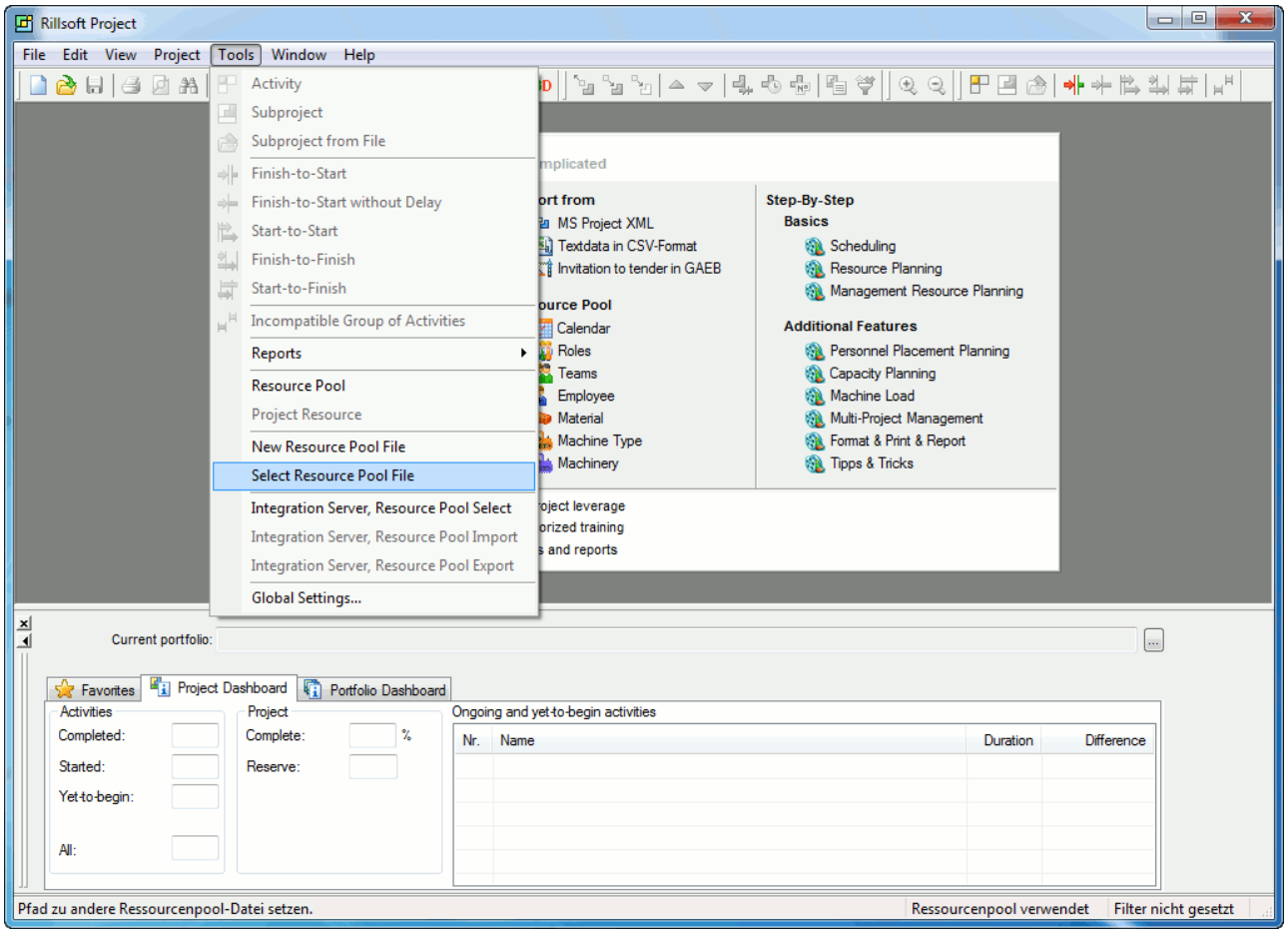
Note: The name of the current resource pool file is shown in the left corner of the status bar. At this, you may have a project opened.

Select other resource pool

When you first start the program, you find the resource pool as RillPrj.xml-file in the Rillsoft Project data directory.
You can choose another resource pool.

Close all projects bevore choosing another resource pool.

- Select the menu item **File / Close** to close all projects.
- Select the menu item **Tools / Select resource pool file**.
- Select the required file *.xml in the opening dialogue window.

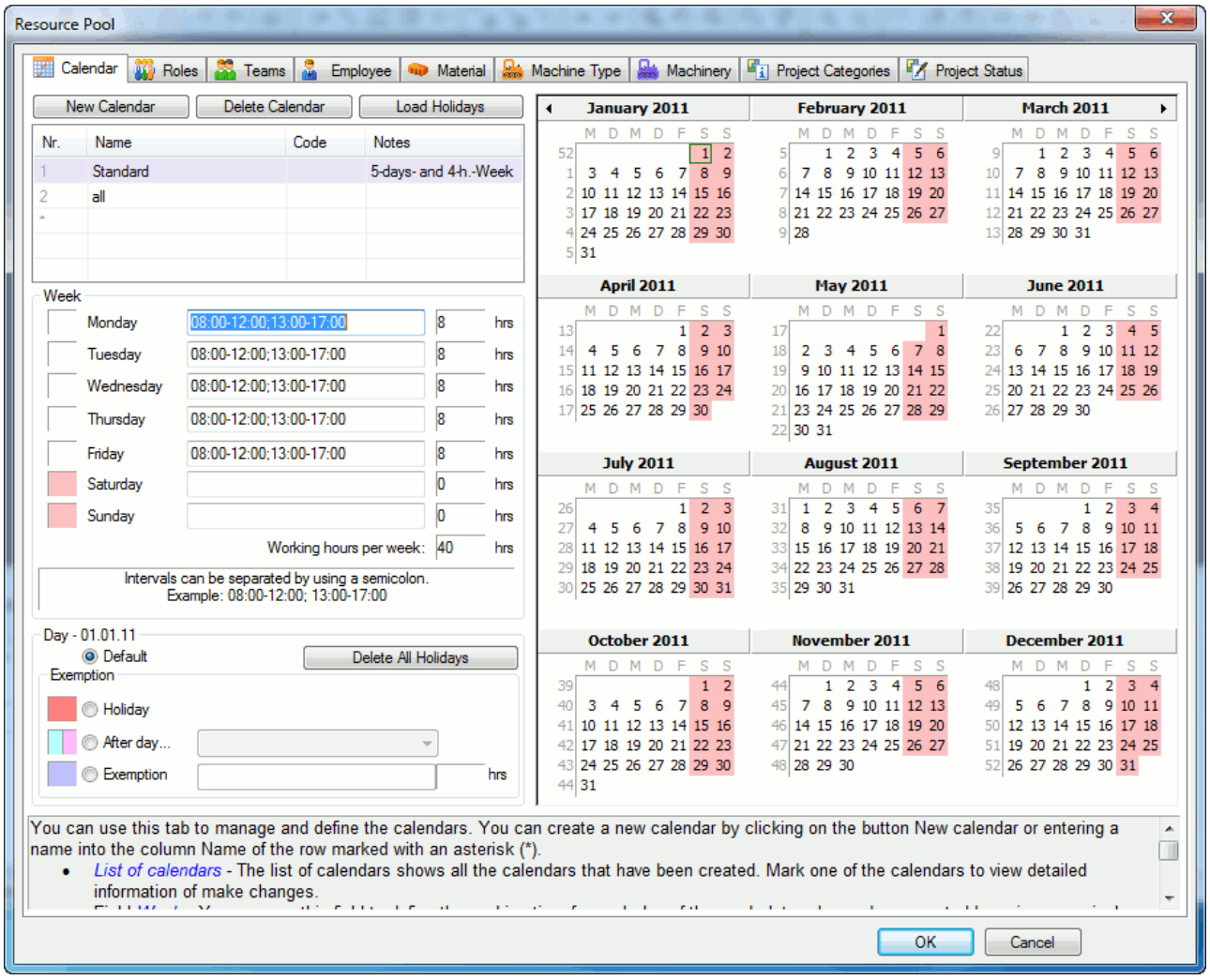


Note: The name of the current resource pool file is shown in the left corner of the status bar. At this, you may have a project opened.

Set and adjust calendars

In order to set and adjust calendars, you do as follows:

1. Select the menu item **Tools / Resource pool**.
   The dialogue box **Resource pool** opens.
2. Select the tab **Calendar**.



3. In order to create a new calendar, click on the button **New calendar** or enter a calendar name in the column **Name**, which is marked with an asterisk (*).

   Note: The list of calendars shows all the calendars that have been created. Mark one of the calendars to view detailed information of make changes.

4. In the field **Week**, define the working time for each of the days in a week. Intervals can be separated by using a semicolon (example: 08:00-12:00; 13:00-17:00).
5. In the field **Day** define the non-working days. You can enter deviating working times for single days (such as Shrove Tuesday). Also, you can define additional working days.
6. Mark the day in the calendar view you want to change.
7. Select the option **Default** if you want to set the change made to a day to its default weekday definition.
8. Select the option **Holiday** if the marked day is a holiday.

9. Select the option **After day...** if the marked day should be subject to the rules of another weekday. For this, select the corresponding weekday definition from the drop down menu.

   Note: If you change the working times in the weekday definition, the working time of this day will be changed accordingly.

10. You can select the option **Exemptions** to define an individual working time for the marked day.

    Note: Any changes to the working time in the weekday definition has no effects on this day.

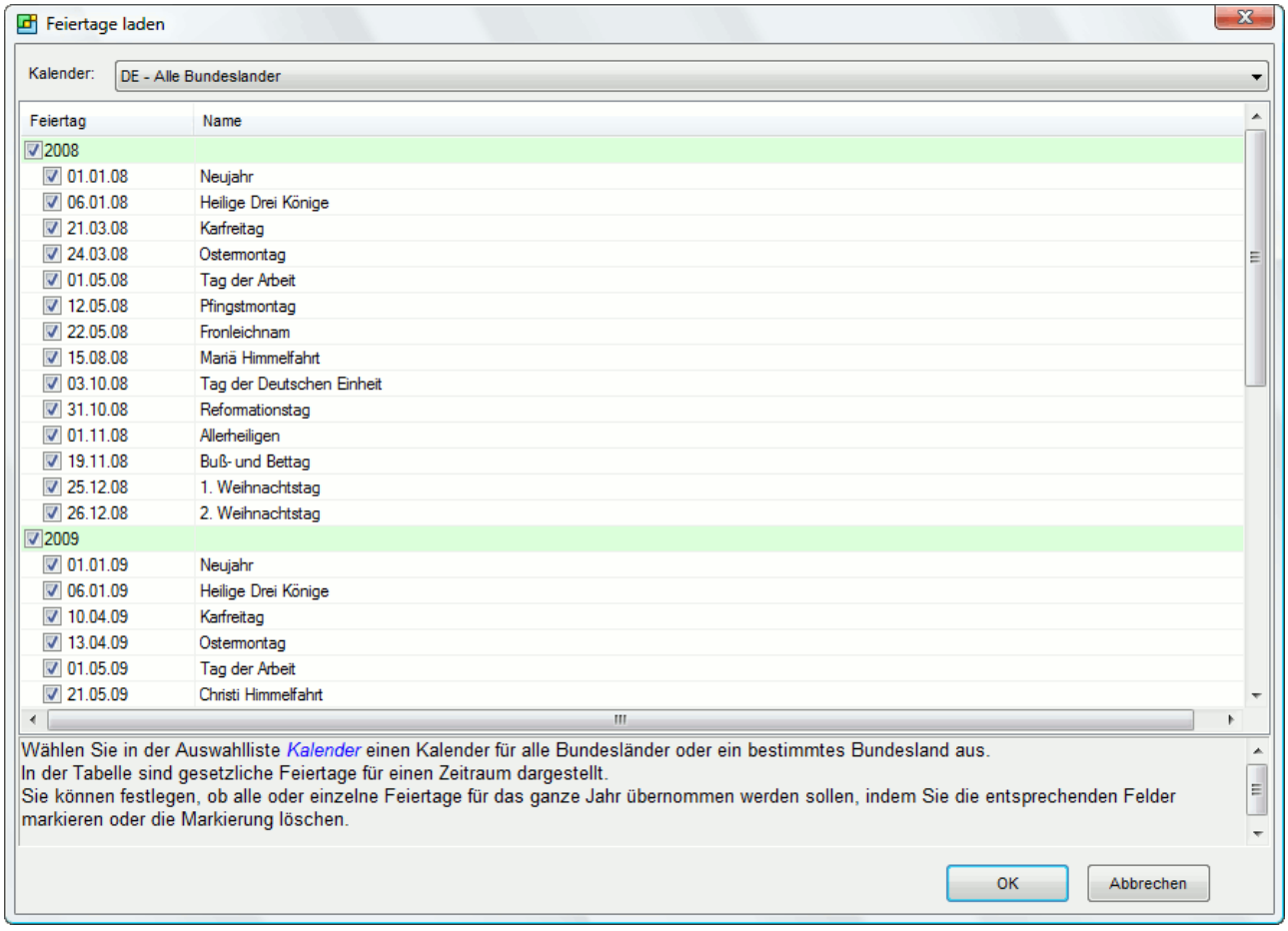
    Note: In order to delete a calendar, click on the button **Delete calendar**.

11. Click on the button **OK**.

Download holidays

You can download official holidays for coming years and different states from our server to you program. Accept these holodays by clicking on the button **Download holidays**. We recommend the following procedure:

1. The dialogue window **Download holidays** appears.



2. Select your calendar from the drop dowm menu **Calendar**, such as GER-all states.
3. You can accept the holidays for the entire year by marking the check box next to the year date, such as 2010.

4. Alternatively, you can mark only particular holidays and enter them into your calendar.
5. Click on the button **OK**.

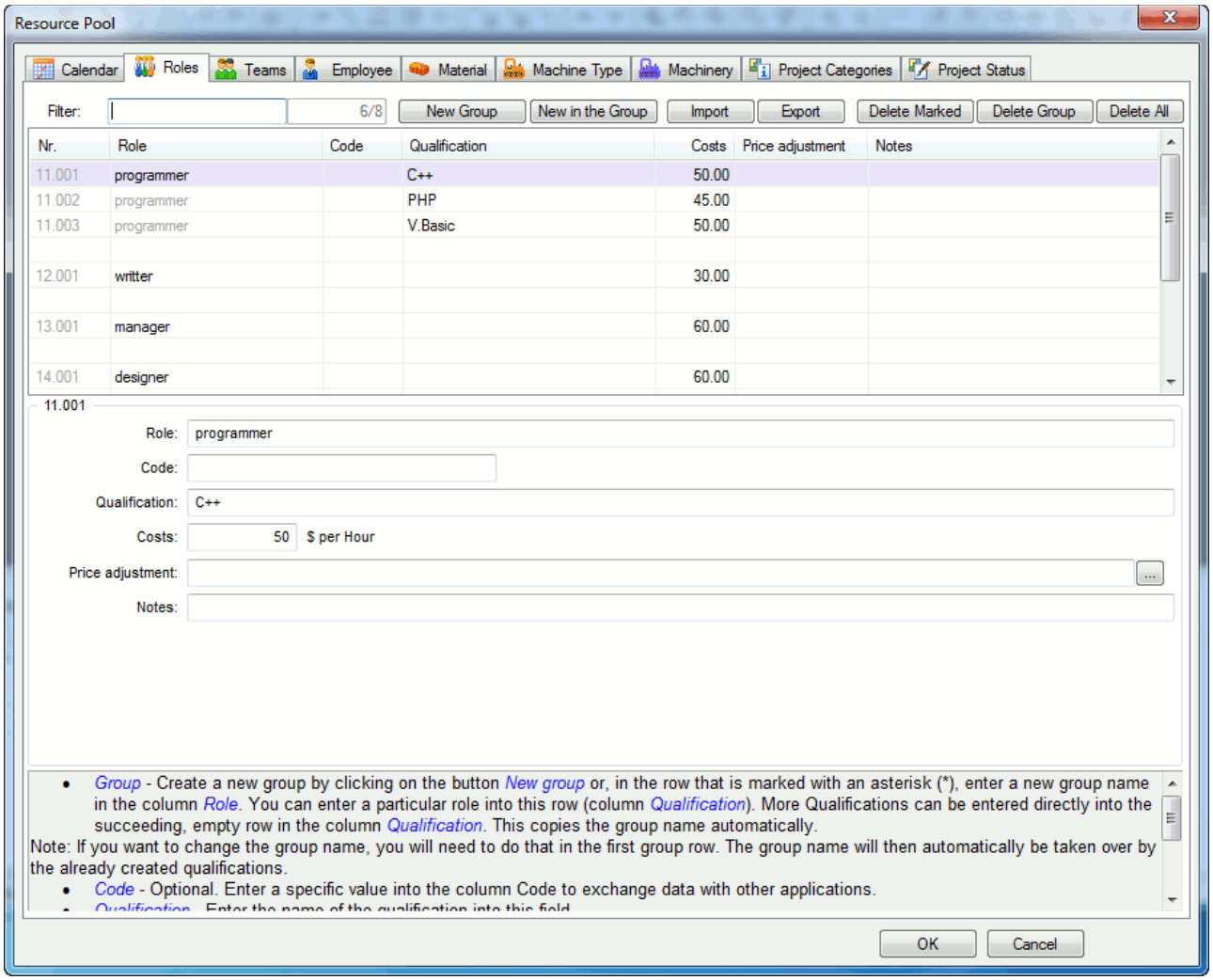
Set and adjust roles

Rillsoft Project allows you to define roles in a flexible way, because you can set different quality ranks with graded cost rates for roles. We recommend you defining roles in a way that allows for being administered in groups. You may want to define a group for each of the roles individually (example: floor tiler, carpenter, ...)

You enter the qualification and corresponding cost rate directly into the group (example: carpenter - foreman, master, craftsman, apprentice, etc.).

In order to set and adjust roles, you do as follows:

1. Select the menu item **Tools / Resource pool**.
   The dialogue box **Resource pool** opens.
2. Select the tab **Roles**.



3. Create a new group by clicking on the button **New group** or, in the row that is marked with an asterisk (*), enter a new group name in the column **Role**.
4. Now, enter a specific role in this group into the row (column **Qualification**).
5. You can enter more qualification ranks in the empty row below in the column **Qualification**, which copies the group name automatically.

   Note: To change the name of the role, you need to do this in the first group row first, which automatically transfers the group name to all the other stored qualification ranks.

6. Enter a specific value into the column **Code** to exchange data with other applications.
7. Enter the costs per hour into the field **Costs**.
8. After a particular date, you can enter either a coefficient for an existing unit price or a new unit price per hour and role into the field **Cost adjustment**.
9. If you like, enter a note into the field **Notes**.
10. Click on the button **OK**.

Import / export of roles

Click on the button **Export** to export a resource to a TXT file or on the button **Import** to import resources.

Import / export fields:

- [ID]
- [Role](required field)
- [Code]
- [Qualification](required field)
- [Costs]
- [Cost adjustment]
- [Notes]

The individual fields are separated by a hash key "#".

Sample of an import file:
#Stucco plasterer, plasterer##Foreman - construction#23.00##
#Stucco plasterer, plasterer##Stucco plasterer#22.00##
#Stucco plasterer, plasterer##Stucco plasterer hand#12.00##
#Stucco plasterer, plasterer##Plasterer hand#12.00##

Note:

- You can search for roles in the field **Filter**. Enter the search phrase (or a part of it) into the field.

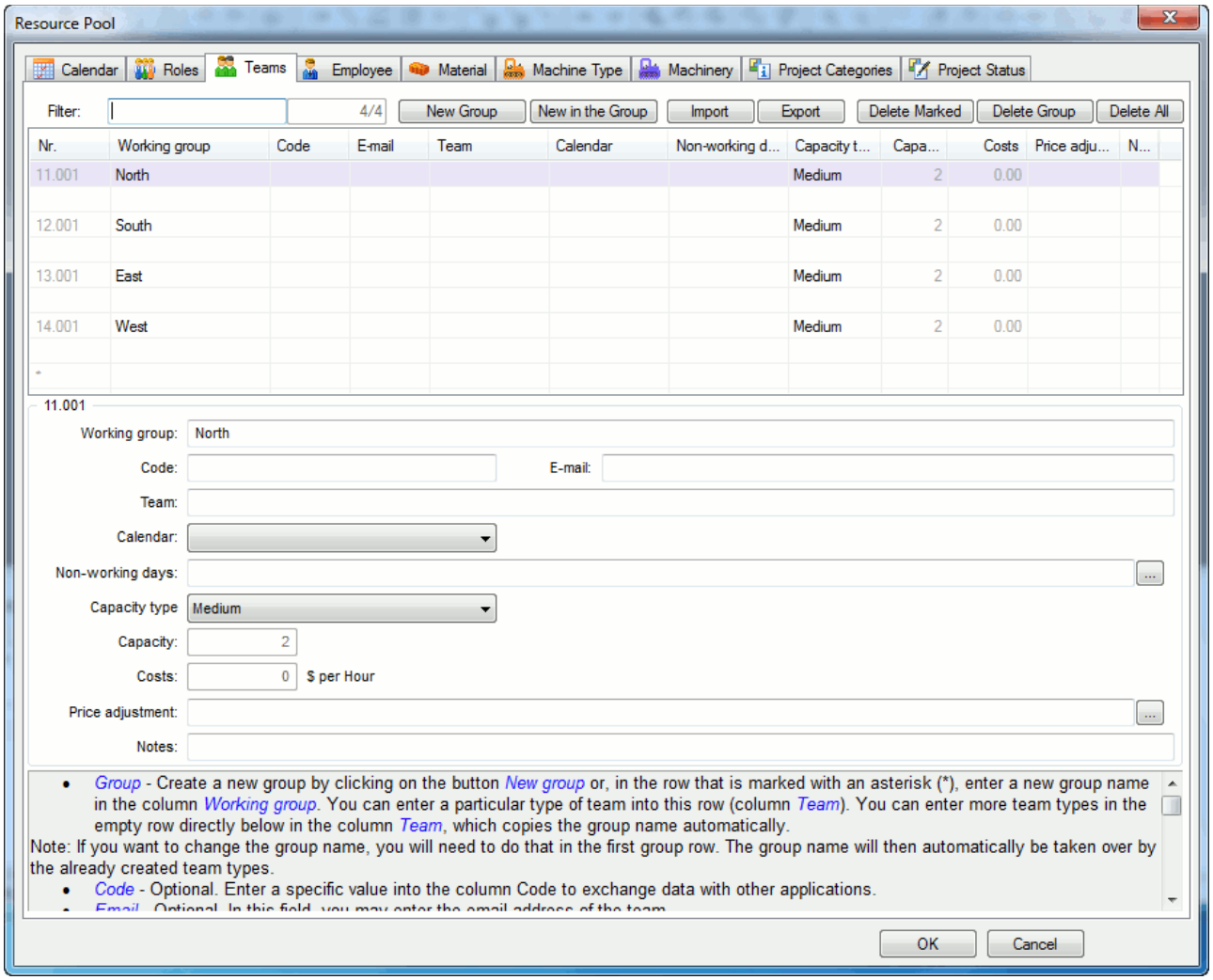
Set and adjust teams

Rillsoft Project provides for a very flexible management of teams. You can define teams by means of the assigned employees or via fixed costs and capacities. We recommend you defining teams in a way that allows for being administered in groups. You may want to define a group for each of the teams individually (example: Team floor tiler, Team carpenter, ...)

You enter the name of the team and the capacities directly into the group. (Example: Foreman - Team early shift, Team late shift.)

In order to set and adjust teams, you do as follows:

1. Select the menu item **Tools / Resource pool**.
   The dialogue box **Resource pool** opens.
2. Select the tab **Teams**.



3. Create a new group by clicking on the button **New group** or, in the row that is marked with an asterisk (*), enter a new group name in the column **Working group**.
4. Now, enter a new team type in this group into the row (column **Team**).
5. You can enter more team types in the empty row below into the column **Team**, which copies the group name automatically.

   Note: To change the name of the group, you need to do this in the first group row first, which automatically transfers the group name to all the other stored team types.

6. Enter a specific value into the column **Code** to exchange data with other applications.

7. From the drop down list **Calendar**, select the calendar that should apply for this team. If you have not selected a calendar, the program searches for a valid calendar in the following order. Activity calendar and project calendar.
8. Enter the non-working days of the team (job trainings, workshops, etc.) into the field **Non-working days**. Note: (Example for a definition of non-working days: 18.03.05-22.04.05; 25.05.05; 08.06.05-17.06.05).
9. Select the option according to which you want to calculate the capacity and costs of the team in the drop down menu **Capacity type**.
    - **Fixed:** For own, naual fixing of capacity and costs in the columns Capacity and Costs.
      Note: This option is only applicable in the event of the definition of a team through capacity and costs per hour, without having assigned employees to the teams.
      If you combine employees to teams, we recommend you using one of the following options.
    - **Optimistic:** The calculation of capacity and costs is done on the basis of a higher level of productivity and the corresponding cost rates of each of the employees.
    - **Real:** The calculation of capacity and costs is done on the basis of the highest cost rate and the corresponding level of productivity of each of the employees.
    - **Median:** The calculation of capacity and costs is done on the basis of the median value from the level of productivity and the cost rate of each of the employees.

    Note: The options **Optimistic**, **Real** and **Median** provide different results only when an employee has been assigned to several roles and is recorded with these several roles as team member.

10. Enter the capacity for all team members, which is calculated in dependence on the selected type of calculation in the field Capacity type (corresponds normally with the number of team members) into the field **Capacity**. You can change this value in the option Fixed.
11. In the field **Costs**, enter the total cost rate for all members of the team, which is calculated in dependence on the selected type of calculation in the field **Capacity type**.ein. You can change this value in the option **Fixed**.
12. After a particular date, you can enter either a coefficient for an existing unit price or a new unit price per hour of the team into the field **Cost adjustment**.
13. If you like, enter a note into the field **Notes**.
14. Click on the button **OK**.

Import / export of teams

Click on the button **Export** to export a resource to a TXT file or on the button **Import** to import resources.

Import / export fields:

- [ID]
- [Working group](required field)
- [Code]
- [Team](required field)
- [Calendar]
- [Non-working days]
- [Capacity type]
- [Capacity]
- [Costs]
- [Cost adjustment]
- [Notes]

The individual fields are separated by a hash key "#".

Sample of an import file:

```
#Underground construction##Team underground construction 0.45kg##0#5#68.04kg#
#Underground construction##Team underground construction 2###0#4#120.00##
#Building construction##Team building construction 0.45kg##0#6#95.25kg#
#Building construction##Team building construction 0.91kg##0#8#104.33kg#
#Building construction##Team building construction 3###0#7#225.00##
```

Note:

- You can search for teams in the field **Filter**. Enter the search phrase (or a part of it) into the field.

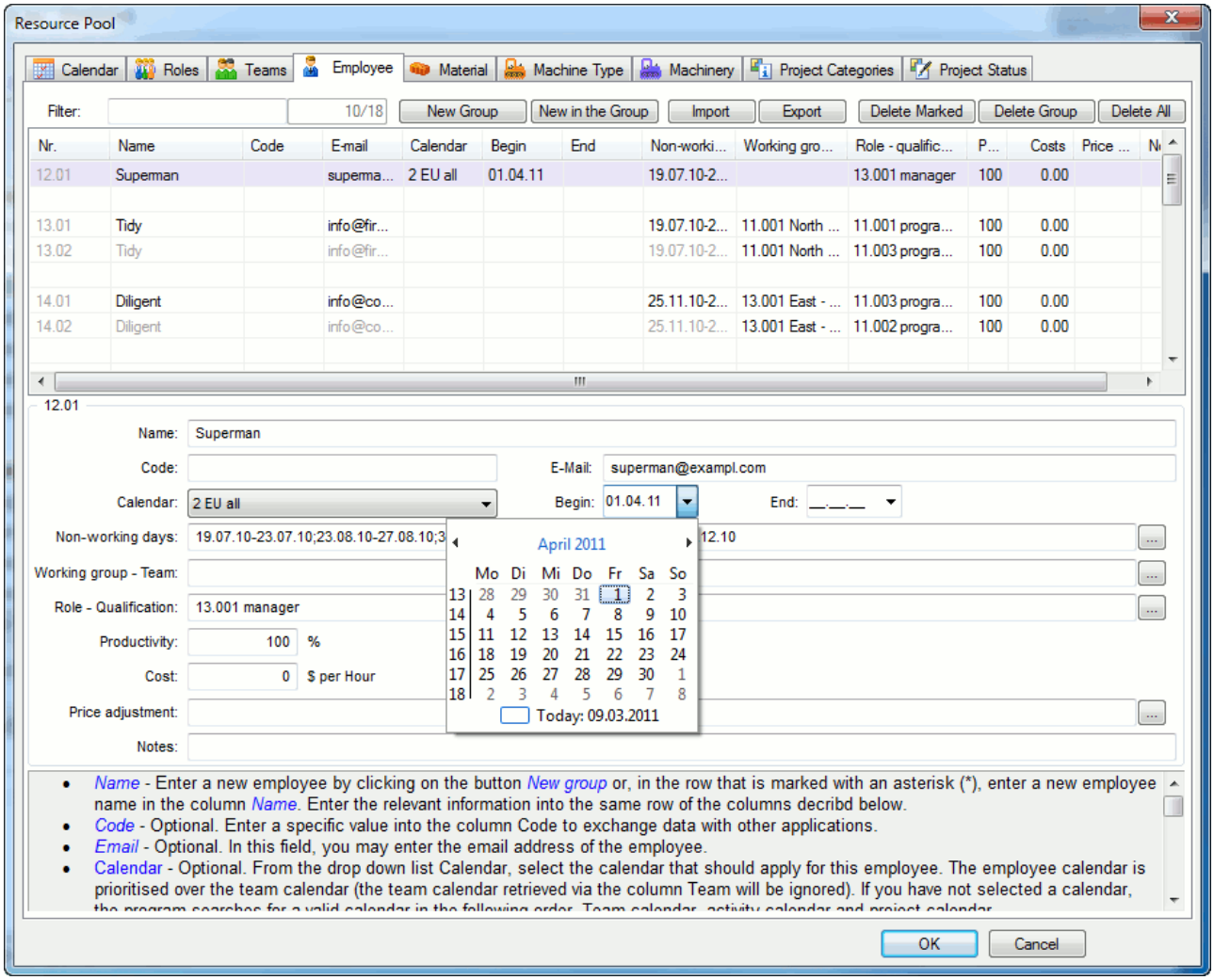
Set and adjust employees

Rillsoft Project provides for a very flexible management of employees. You can assign several different roles, team memberships, costs and productivity to employees.

Note: We recommend you creating teams before defining employees.

In order to set and adjust employees, you do as follows:

1. Select the menu item **Tools / Resource pool**.
   The dialogue box **Resource pool** opens.
2. Select the tab **Employees**.



3. Create a new group or a new employee by clicking on the button **New group** or, in the row that is marked with an asterisk (*), enter a new employee name in the column **Name**.
4. Enter the property of an employee (a new role or team membership) already in this group in the row (columns **Working group – team** and **Role - qualification**). You can enter additional properties of the employee directly into the empty row below in the column **Working group - team** and **Role - qualification**, while the group description is automatically copied.

   Note: To change the name of the group, you need to do this in the first group row first, which automatically transfers the group name to all the other stored material types.

5. Enter a specific value into the column **Code** to exchange data with other applications.
6. From the drop down list **Calendar**, select the calendar that should apply for this employee. If you have not selected a calendar, the program searches for a valid calendar in the following order. Team calendar, activity calendar and project calendar.
7. Enter the date the employee has entered the company in the field **Entry**.
8. Enter the date the employee has left the company in the field **Leaving**.
9. Enter the non-working days of the employee (job trainings, workshops, etc.) into the field **Non-working days**. Note: The non-working days entered here will be added to those defined in the team. (Example for a definition of non-working days: 18.03.05-22.04.05; 25.05.05; 08.06.05-17.06.05).
10. Select the team which you want the employee assign to in the drop down list **Working group - team**.
11. Select the role which you want to assign to the employee in the drop down list **Role - qualification**.
12. Enter a different value for the calculated productivity of an employee in percent in the field **Productivity**.
13. Enter a different value for the calculated hourly rate of an employee (for instance, from the role definition) in the field **Costs**.
14. After a particular date, you can enter either a coefficient for an existing unit price or a new unit price per hour of the employee into the field **Cost adjustment**.
15. If you like, enter a note into the field **Notes**.
16. Click on the button **OK**.

Assign additional roles, teams, costs and productivity to one employee

If you want to assign a different role along with its different cost rate to an employee, do as follows:

1. Enter the different value into the row of the employee directly below (no asterisk) in the corresponding column.

   Caution: Take care that you do not define this employee in another row, which features an asterisk, because this may cause inconsistencies within the project.

Import / export of employees

Click on the button **Export** to export a resource to a TXT file or on the button **Import** to import resources.

Import / export fields:

- [ID]
- [Name](required field)
- [Code]
- [Calendar]
- [Entry date]
- [Leaving date]
- [Non-working days]
- [Team]
- [Role]
- [Productivity]
- [Costs]
- [Cost adjustment]
- [Notes]

The individual fields are separated by a hash key "#".

Example of an import file (only employee names and the corresponding hourly rates are imported):
#Alfgot Zeller#########20.00##

#Alex Harrison#########30.00##
#Uwe Gibbons#########35.00##

Note:

- You can search for employees in the field **Filter**. Enter the search phrase (or a part of it) into the field.

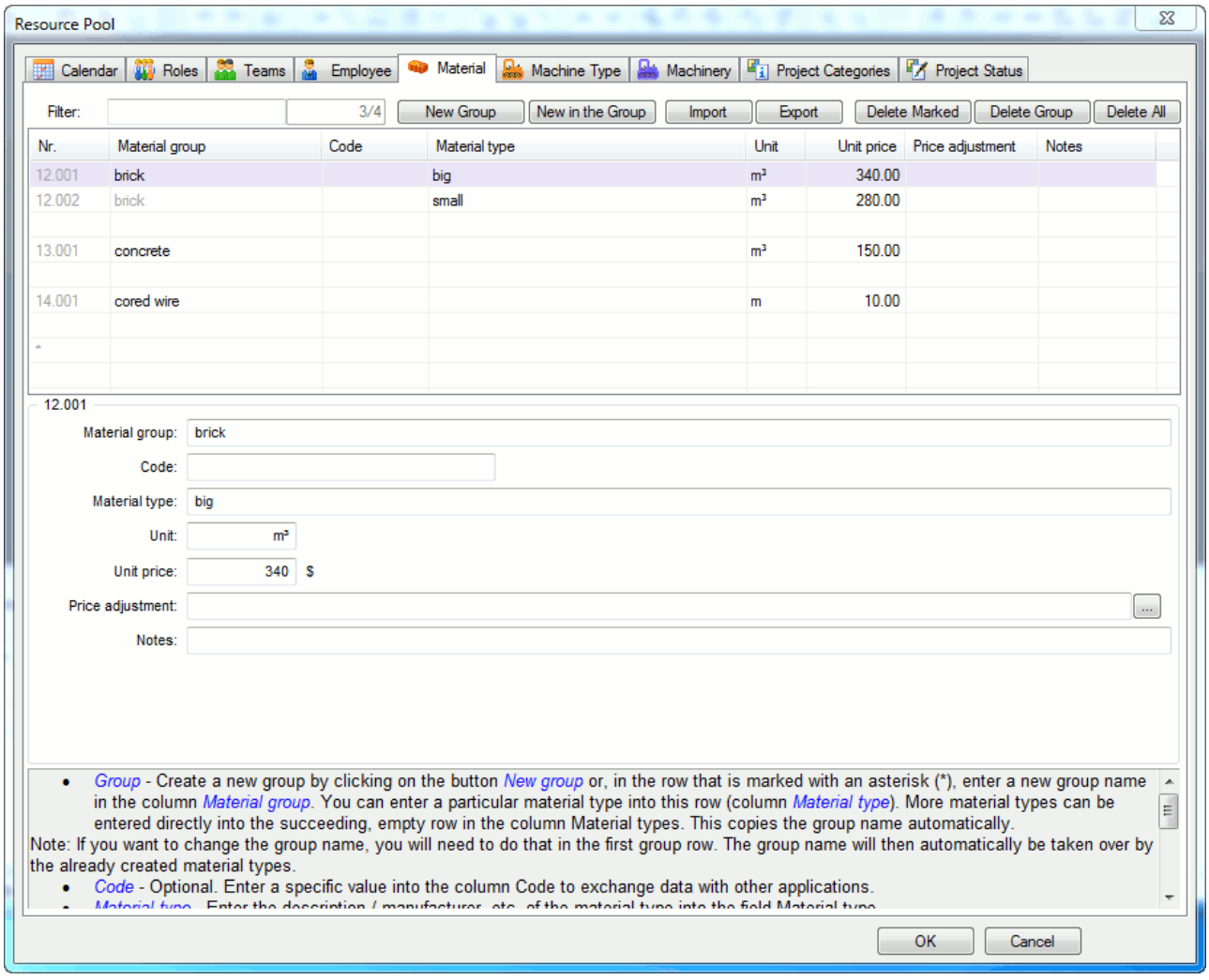
Set and adjust materials

We recommend you defining materials (consumables) in a way that allows for being administrated in groups. You may define a group for each of the materials (for instance: group gravel ...).

Manufacturer, type of material, measurement unit and costs are then entered into the group. (Example: gravel - grit, ballast, etc.)

In order to set and adjust materials, you do as follows:

1. Select the menu item **Tools / Resource pool**.
   The dialogue box **Resource pool** opens.
2. Select the tab **Material**.



3. Create a new group by clicking on the button **New group** or, in the row that is marked with an asterisk (*), enter a new group name in the column **Material group**.
4. Now, enter a new material type in this group into the row (column **Material type**). You can enter more material types in the empty row directly below in the column Description, which copies the group name automatically.

   Note: To change the name of the group, you need to do this in the first group row first, which automatically transfers the group name to all the other stored material types.

5. Enter a specific value into the column **Code** to exchange data with other applications.

6. Enter the description / manufacturer, etc. of the material type into the field **Material type**.
7. Enter the measurement unit of the material type (example: tons, square metres, piece, etc.) into the field **Measurement unit**.
8. Enter the costs per measurement unit into the field **Unit price**.
9. After a particular date, you can enter either a coefficient for an existing unit price or a new unit price per measurement unit of the material into the field **Price adjustment**.
10. If you like, enter a note into the field **Notes**.
11. Click on the button **OK**.

Import / export of materials

Click on the button **Export** to export a resource to a TXT file or on the button **Import** to import resources.

Import / export fields:

- [ID]
- [Material group](required field)
- [Code]
- [Material type](required field)
- [Measurement unit]
- [Unit price]
- [Price adjustment]
- [Notes]

The individual fields are separated by a hash key "#".

Sample of an import file:
#Building construction - Ready-mixed concrete##Ready-mixed concrete BI: B 5 KS 0/32 HOZ 35L#m3#122.00##
#Building construction - Ready-mixed concrete##Ready-mixed concrete BI: B 5 KS 0/32 HOZ 35L#m3#118.00##
#Building construction - Ready-mixed concrete##Ready-mixed concrete ZTV-K-Beton B35 KP 0/32 PZ 45F#m3#143.50##
#Building construction - Ready-mixed concrete##Ready-mixed concrete ZTV-K-Beton B45 KP 0/32 PZ 45F#m3#147.00##

Note:

- You can search for material groups, material types or the code of a material in the field **Filter**. Enter the search phrase (or a part of it) into the field.

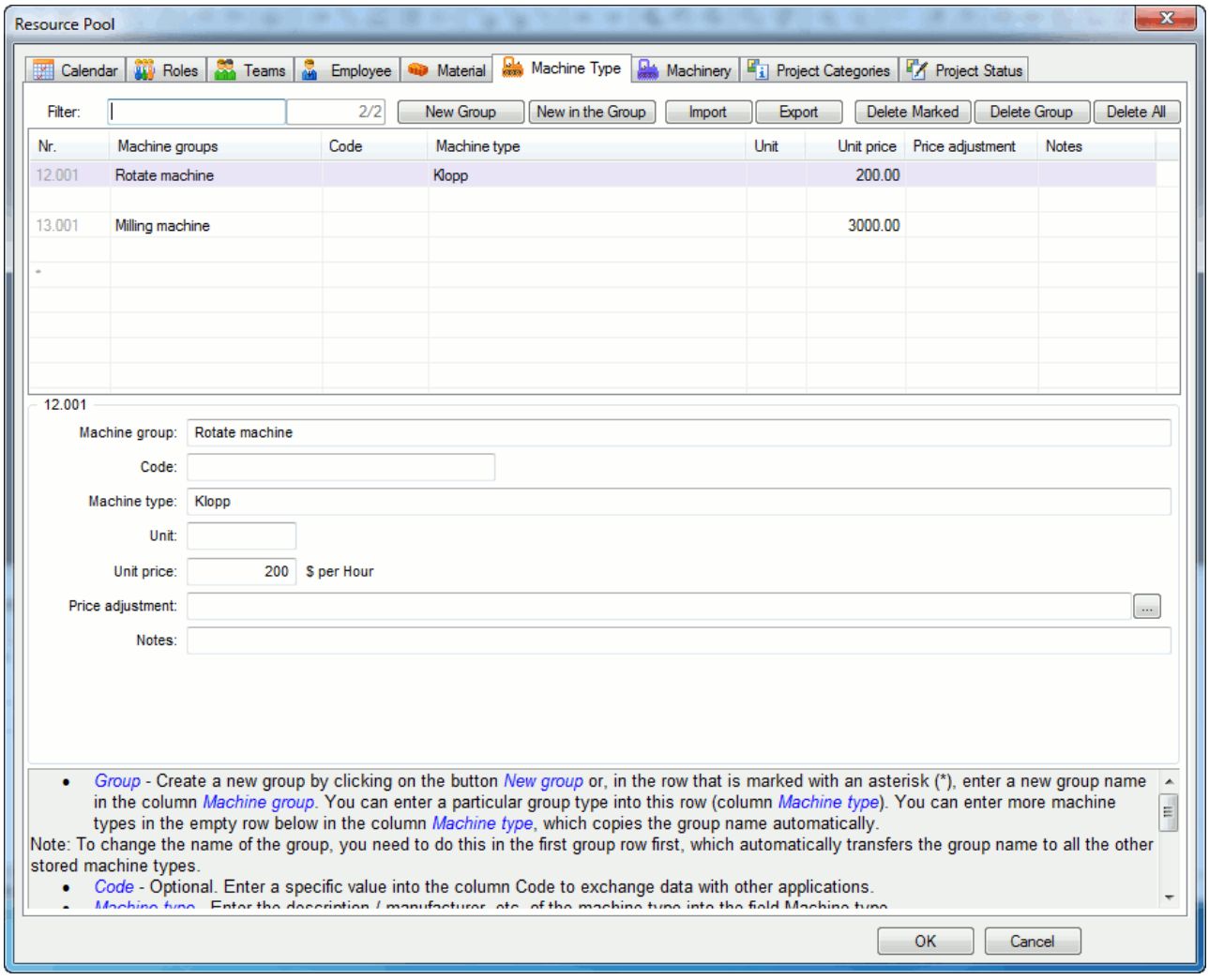
Set and adjust machine types

We recommend you defining machine types in a way that allow for being administrated in groups. You may define a group for each of the machine types (for instance: group lifting david, tower cranes ...).

Manufacturer and machine or device type are then defined within the group. (Example: Lifting davids - Lifting david type 10 to, Lifting david type 100 to, etc.

In order to set and adjust machines, you do as follows:

1. Select the menu item **Tools / Resource pool**.
   The dialogue box **Resource pool** opens.
2. Select the tab **Machine types**.



3. Create a new group by clicking on the button **New group** or, in the row that is marked with an asterisk (*), enter a new group name in the column **Machine group**.
4. Now, enter a new machine type in this group into the row (column **Description**). You can enter more machine types in the empty row below in the column machine type, which copies the group name automatically.

   Note: To change the name of the group, you need to do this in the first group row first, which automatically transfers the group name to all the other stored machine types.

5. Enter a specific value into the column **Code** to exchange data with other applications.

6. Enter the description / manufacturer, etc. of the machine type into the field **Machine type**.
7. Enter the measurement unit of the tool or machine type (example: piece, etc.) into the field **Measurement unit**.
8. Enter the costs per hour of the machine type into the field **Unit price**.
9. After a particular date, you can enter either a coefficient for an existing unit price or a new unit price per hour and machine type into the field **Price adjustment**.
10. If you like, enter a note into the field **Notes**.
11. Click on the button **OK**.

Import / export of machine types

Click on the button **Export** to export a resource to a TXT file or on the button **Import** to import resources.

Import / export fields:

- [ID]
- [Machine group](required field)
- [Code]
- [Machine type](required field)
- [Measurement unit]
- [Unit price]
- [Price adjustment]
- [Notes]

The individual fields are separated by a hash key "#".

Sample of an import file:
#Construction machines - Dredgers##Demolition dredges - Caterpillar#Pcs.#32.00##
#Construction machines - Dredgers##Backhoe-loaders - Bobcat#Pcs.#34.00##
#Construction machines - Dredgers##Chain dredgers - Akermann#Pcs.#44.00##
#Construction machines - Dredgers##Chain dredgers - Atlas#Pcs.#45.00##

Note:

- You can search for machine groups, machine types or the code of a machine type in the field **Filter**. Enter the search phrase (or a part of it) into the field.

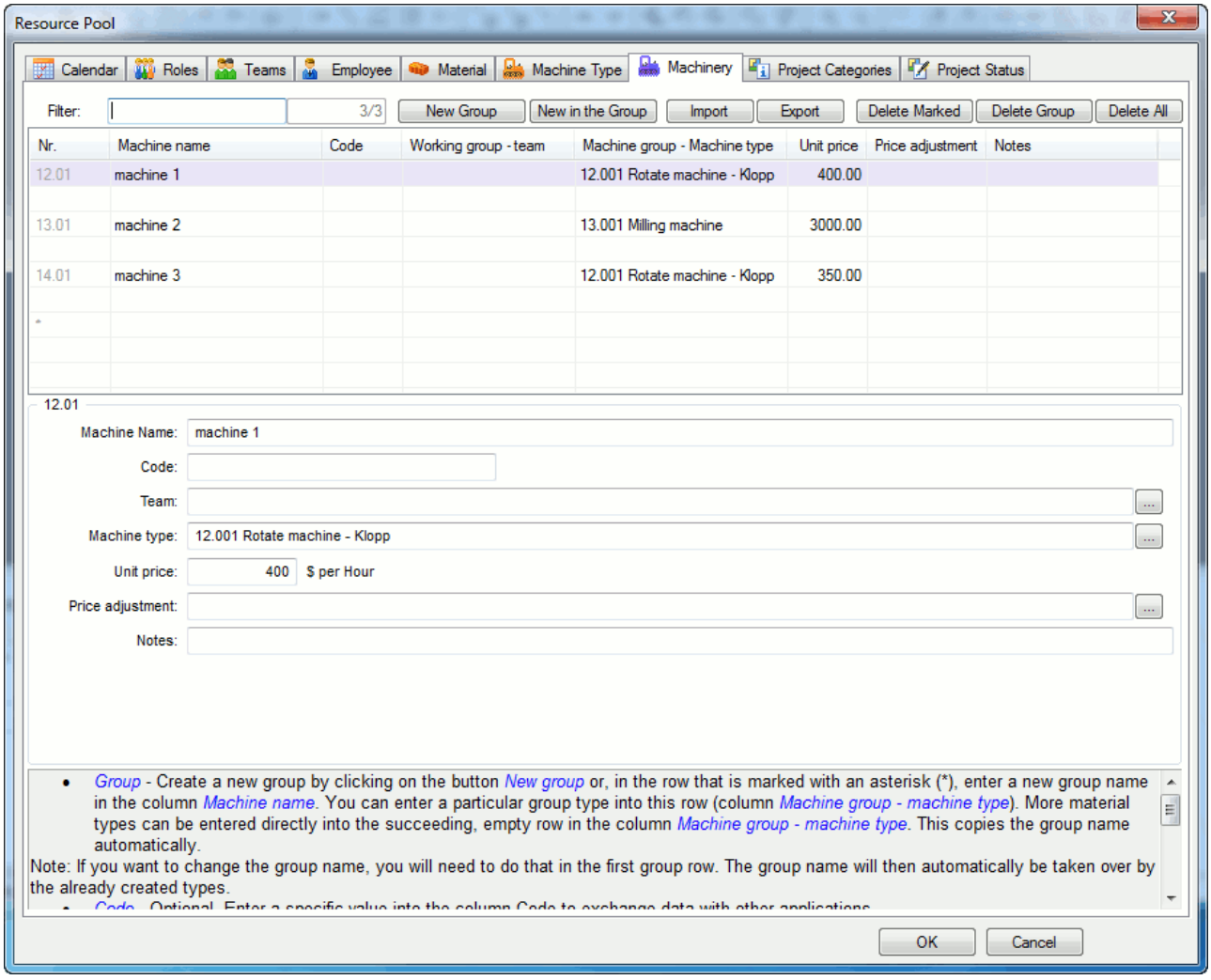
Set and adjust machinery

Rillsoft Project provides for a very flexible management of machinery. You can allocate a machine to machine types and to unit prices and price adjustments.

Manufacturer and machine or device type are then defined within the group. (Example: Lifting davids - Lifting david type 10 to, Lifting david type 100 to, etc.

In order to set and adjust machinery, you do as follows:

1. Select the menu item **Tools / Resource pool**.
   The dialogue box **Resource pool** opens.
2. Select the tab **Machinery**.



3. Create a new group by clicking on the button **New group** or, in the row that is marked with an asterisk (*), enter a new group name in the column **Machine name**.
4. Enter a specific value into the column **Code** to exchange data with other applications.
5. Select the team which you want the machine allocate to in the drop down list **Working group - team**.
6. Select the machine type which you want to allocate to the machine in the drop down list **Machine group - machine type**.
7. Enter the costs per hour of the machine into the field **Unit price**.
8. After a particular date, you can enter either a coefficient for an existing unit price or a new unit price per hour and machine into the field **Price adjustment**.
9. If you like, enter a note into the field **Notes**.
10. Click on the button **OK**.

Import / export of machinery data

Click on the button **Export** to export a resource to a TXT file or on the button **Import** to import resources.

Import / export fields:

- [ID]
- [Machine name](required field)
- [Code]
- [Working group - team]
- [Machine group - machine type](required field)
- [Measurement unit]
- [Unit price]
- [Price adjustment]
- [Notes]

The individual fields are separated by a hash key "#".

Sample of an import file:
#Construction machines - Dredgers##Demolition dredges - Caterpillar#Pcs.#32.00##
#Construction machines - Dredgers##Backhoe-loaders - Bobcat#Pcs.#34.00##
#Construction machines - Dredgers##Chain dredgers - Akermann#Pcs.#44.00##
#Construction machines - Dredgers##Chain dredgers - Atlas#Pcs.#45.00##

Note:

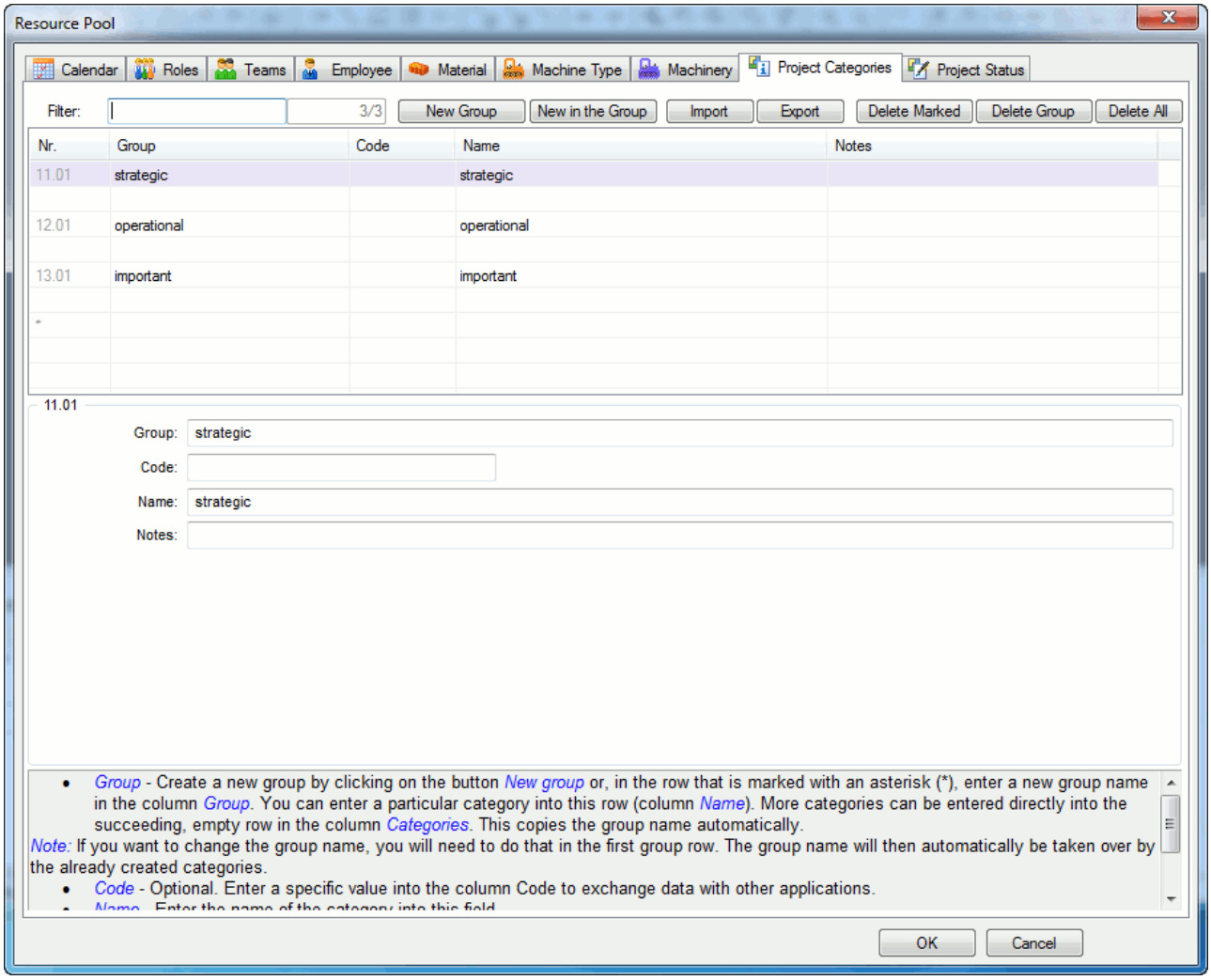
- You can search for machine names, machine types or the code of a machine in the field **Filter**. Enter the search phrase (or a part of it) into the field.

Set and adjust project categories

Rillsoft Project allows you to flexibly summarise project categories in groups.

In order to set and adjust project categories, you do as follows:

1. Select the menu item **Tools / Resource pool**.
   The dialogue box **Resource pool** opens.
2. Select the tab **Project categories**.



3. Create a new group by clicking on the button **New group** or, in the row that is marked with an asterisk (*), enter a new group name in the column **Group**.
4. Now, enter a specific project categories in this group into the row (column **Name**).
5. You can enter more category ranks in the empty row below in the column **Name**, which copies the group name automatically.

   Note: To change the name of the category, you need to do this in the first group row first, which automatically transfers the group name to all the other stored category ranks.

6. Enter a specific value into the column **Code** to exchange data with other applications.
7. If you like, enter a note into the field **Notes**.
8. Click on the button **OK**.

Note:

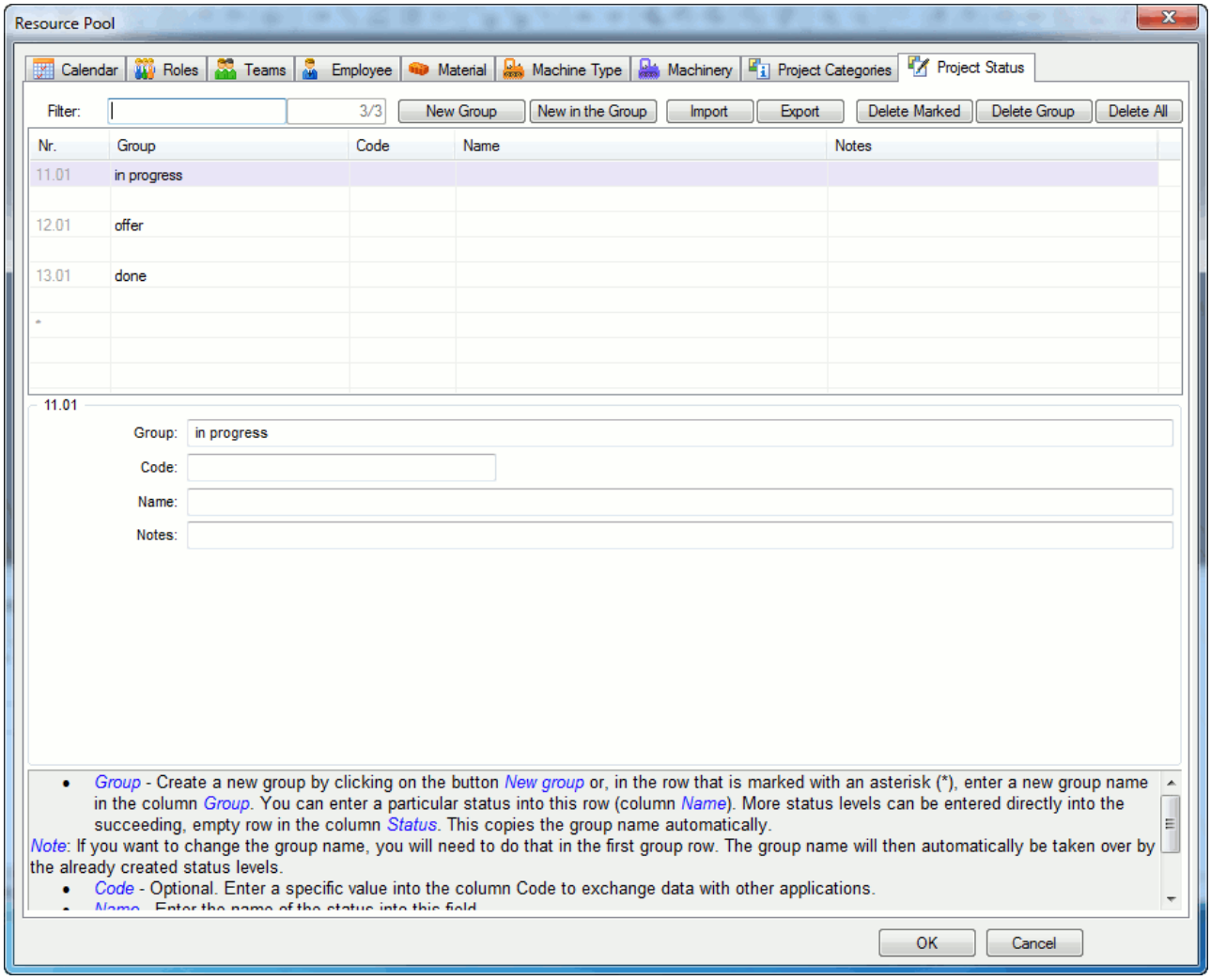
- You can search for project categories in the field **Filter**. Enter the search phrase (or a part of it) into the field.

Set and adjust project status

Rillsoft Project allows you to flexibly summarise the project status in groups.

In order to set and adjust the project status, you do as follows:

1. Select the menu item **Tools / Resource pool**.
   The dialogue box **Resource pool** opens.
2. Select the tab **Project status**.



3. Create a new group by clicking on the button **New group** or, in the row that is marked with an asterisk (*), enter a new group name in the column **Group**.
4. Now, enter a specific project status in this group into the row (column **Name**).
5. You can enter more status ranks in the empty row directly below in the column **Name**, which copies the group name automatically.

   Note: To change the name of the status, you need to do this in the first group row first, which automatically transfers the group name to all the other stored status ranks.

6. Enter a specific value into the column **Code** to exchange data with other applications.
7. If you like, enter a note into the field **Notes**.
8. Click on the button **OK**.

Note:

- You can search for the project status in the field **Filter**. Enter the search phrase (or a part of it) into the field.

Resource allocation

Rillsoft Project provides you two variants of resource allocation:

1. to allocate resources to **an activity**. First choose an activity in the bar diagram and then select the resources, such as roles or employees, from the window Activity properties in the tabs. You may then allocate the required resource correspondingly.
2. to allocate activities to **a resource**. First define a resource in one of the Resource utilization views and then, select the activities, to which the resources you want to assign, in the window Resource properties.
3. **Personnel assignation assistant**. If you have already defined personnel resources in the project in the form of roles, you can semi-automatically assign the employees to activities.

Important! A project schedule including activities should have been set up and the required resources, such as roles, teams and personnel need already to be defined prior to the time of the assignation.

Allocate resources to an activity

Once you have set up a resource pool via the menu item **Tools / Resource pool** and laid out a project plan in the bar diagram, do as follows:

- Select the view **Bar diagram**.
- Choose an activity by either selecting it from the Activity table or leftclicking on it in the bar diagram field.
  The activity will be marked and the information is shown in the lower part of the Properties window.
- Select one of the tabs with the resources, such as **Roles, Teams, Employees, Machines** etc., depending on what resource you want to allocate.
- The left table shows resources from the resource pool.
- Doubleclick on one of these resources.
- You can allocate several resources to one activity at a time.
  In this, you can define the required quantity, utilization and effort and verify the readiness and availability of personnel resources.
- Finally, click **OK**.

Allocate activities to a resource

Once you have set up a resource pool via the menu item **Tools / Resource pool** and laid out a project plan in the bar diagram, do as follows:

- Select one of the views of resource utilization, such as **Role utilization, Team utilization** or **Employee utilization**.
  Tip! If roles have already been assigned, you can use the view Capacity alignment to conveniently assign employees to activities.
- In the filter **Project / Filter**, deactivate the option **Offer only used resources for selection**, so as to have all resources from the resource pool shown in the table.
- Choose a resource by either selecting it from the resources table or leftclicking on it in the timescale field.
  The resource will be marked and the corresponding information shown in the lower part of the Properties window.
- Select the tab **Activities**.
- Mark the check boxes of the activities.
- You can define different parameters resource-wise for an activity.
- In this way, you can assign several activities to one resource at a time.
- Click on the button **OK**.

Personnel assignation assistant

Requirements: In order to assign employees to activities, you first need to assign personnel resources in the form of roles.
By help of the menu item **Project / Assign employees to activities**, you can:

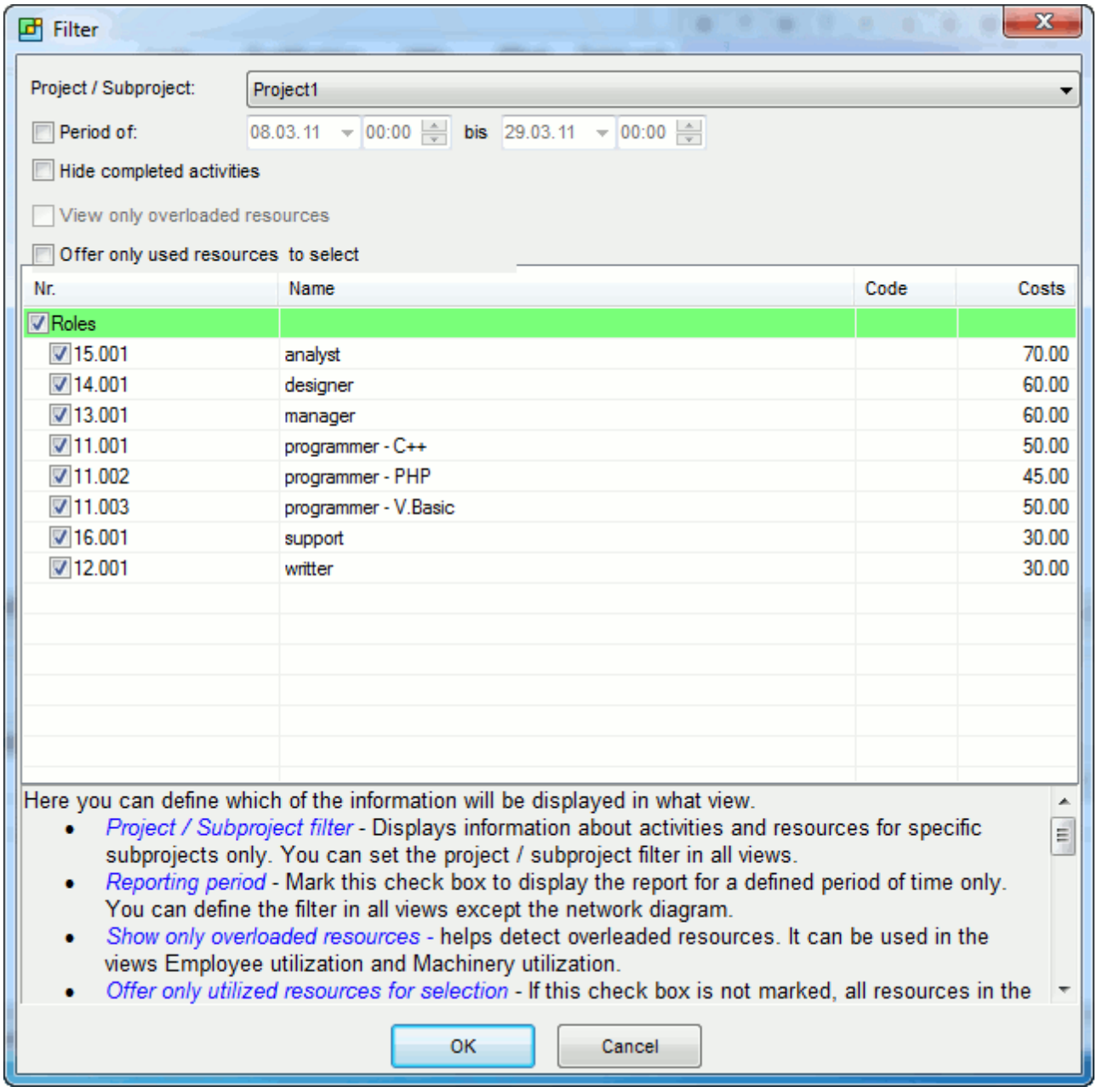
- first, define the employees you want to assign.
- Secondly, mark the activities.
- Analyse and confirm the provided employee assignation.

Possible conflicts or overloads are marked in red. For those, there will be no automatic assignation / allocation.

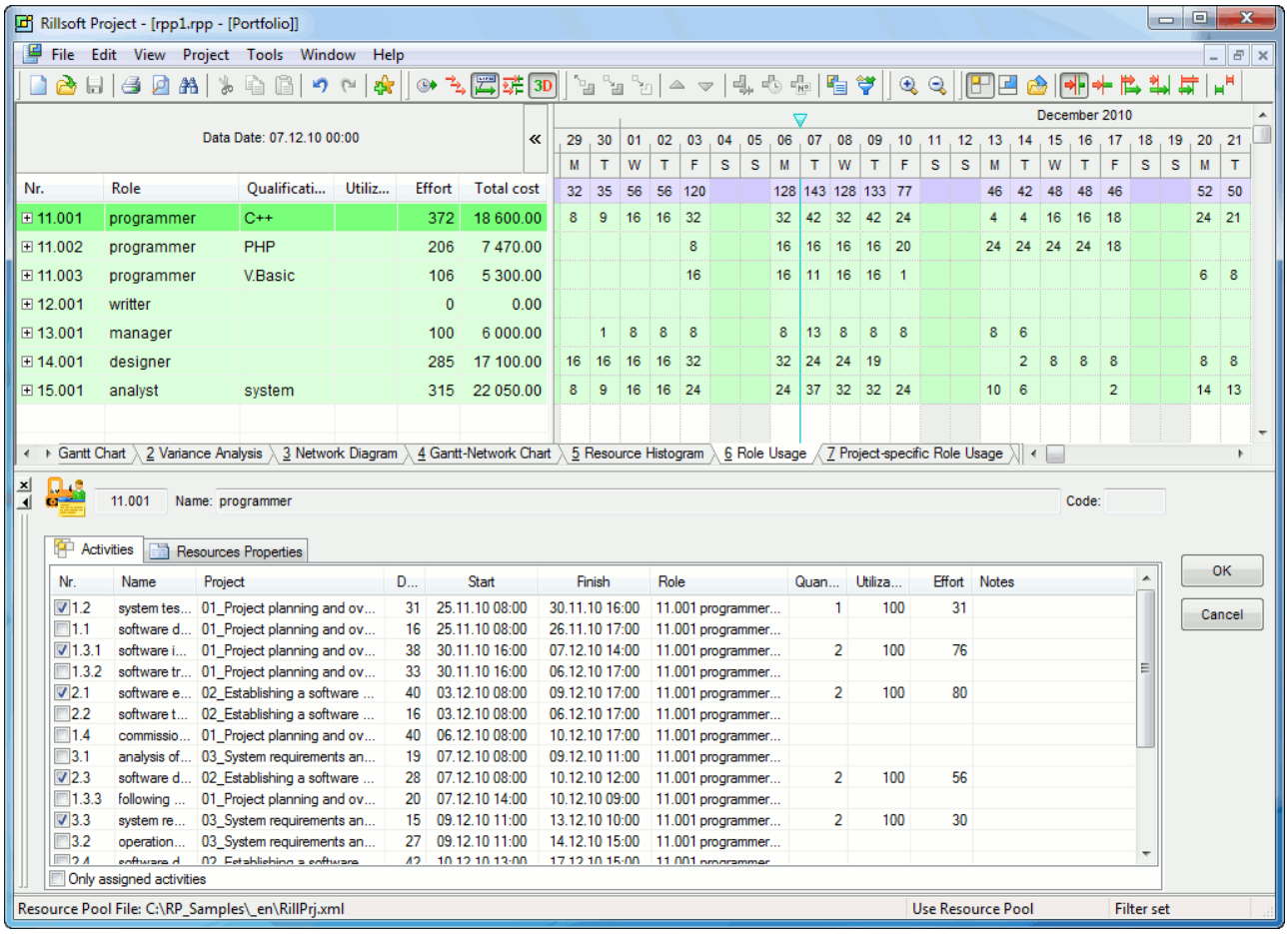
Assign activities to a role in the view Role utilization

In order to assign activities to a role, do the following:

1. Select the view **Role utilization**.
2. Select the menu item **Project / Filter**.
   The dialogue box **Filter** opens.



3. Remove the tick of the check box **Offer only used resources for selection** to view all roles from the resource pool in the list.
4. You can mark the check box **Roles** and transfer all roles to the view Role utilization. **Alternatively**, you can mark only selected roles.
5. Click on the button **OK**.
6. Select a role which you want to assign activities to in the table of the view Role utilization.
   The tab **Activities** in the window Resource properties lists activities from the project schedule.



7. Mark the check boxes of the activities.
8. You can, among others, define the **quantity, utilization and effort** of a role for an activity.
9. Click on the button **OK**.

Role properties during assignation

In this allocation, you can refine role properties by controlling and defining the following values for each of the activities:

- Number of roles
- Utilization of a role
- Effort of a role
- Notes regarding to a role.

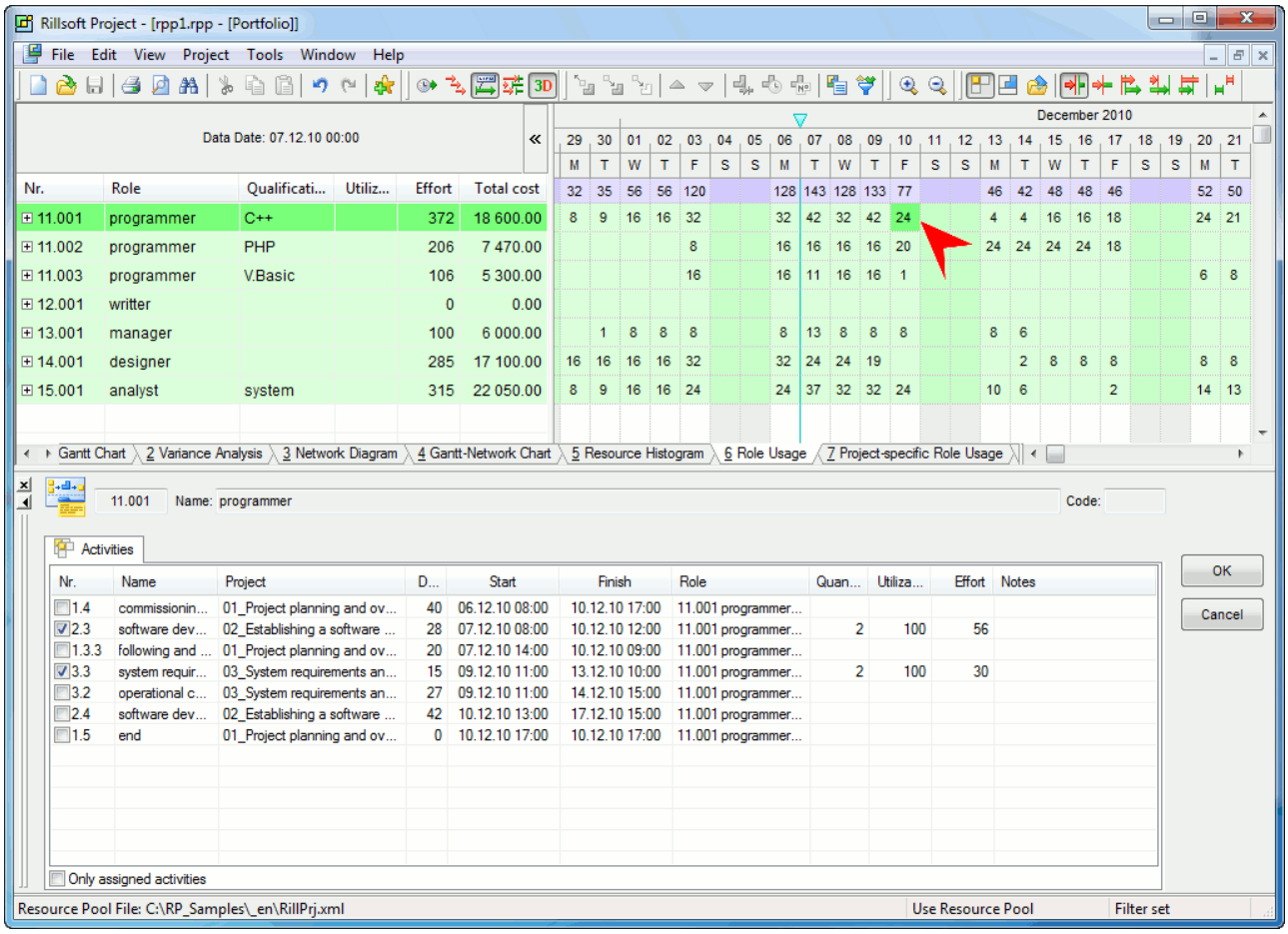
Selection of activity

During this assignation, you can determine the activity list by activating /deactivating the following options:

- **Assigned activities only**, lists only assigned activities.

Activities at a specific date

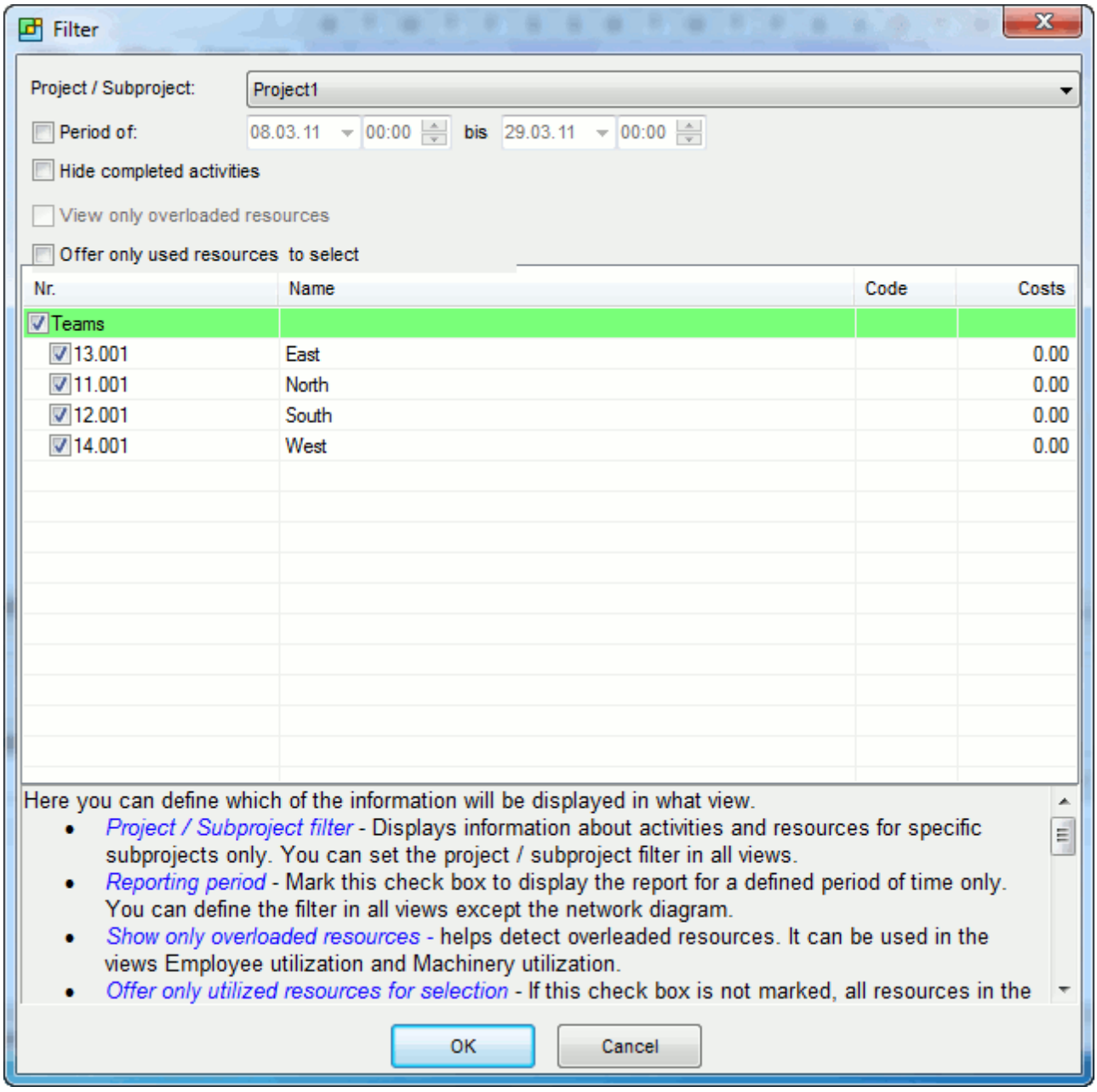
You can filter activities that are due at a specific date.
If you leftclick on a cell showing the result from the row Roles and column Date, you will only be displayed the activities that were defined for this particular period of time.


Rillsoft Project - [rpp1.rpp - [Portfolio]]
File Edit View Project Tools Window Help
Data Date: 07.12.10 00:00
December 2010
Nr. Role Qualificati... Utiliz... Effort Total cost
11.001 programmer C++ 372 18 600.00
11.002 programmer PHP 206 7 470.00
11.003 programmer V.Basic 106 5 300.00
12.001 writter 0 0.00
13.001 manager 100 6 000.00
14.001 designer 285 17 100.00
15.001 analyst system 315 22 050.00
Gantt Chart 2 Variance Analysis 3 Network Diagram 4 Gantt-Network Chart 5 Resource Histogram 6 Role Usage 7 Project-specific Role Usage
11.001 Name: programmer Code:
Activities
Nr. Name Project D... Start Finish Role Quan... Utiliza... Effort Notes
1.4 commissionin... 01_Project planning and ov... 40 06.12.10 08:00 10.12.10 17:00 11.001 programmer...
2.3 software dev... 02_Establishing a software ... 28 07.12.10 08:00 10.12.10 12:00 11.001 programmer... 2 100 56
1.3.3 following and ... 01_Project planning and ov... 20 07.12.10 14:00 10.12.10 09:00 11.001 programmer...
3.3 system requir... 03_System requirements an... 15 09.12.10 11:00 13.12.10 10:00 11.001 programmer... 2 100 30
3.2 operational c... 03_System requirements an... 27 09.12.10 11:00 14.12.10 15:00 11.001 programmer...
2.4 software dev... 02_Establishing a software ... 42 10.12.10 13:00 17.12.10 15:00 11.001 programmer...
1.5 end 01_Project planning and ov... 0 10.12.10 17:00 10.12.10 17:00 11.001 programmer...
Only assigned activities
OK
Cancel
Resource Pool File: C:\RP_Samples_en\RillPrj.xml
Use Resource Pool
Filter set

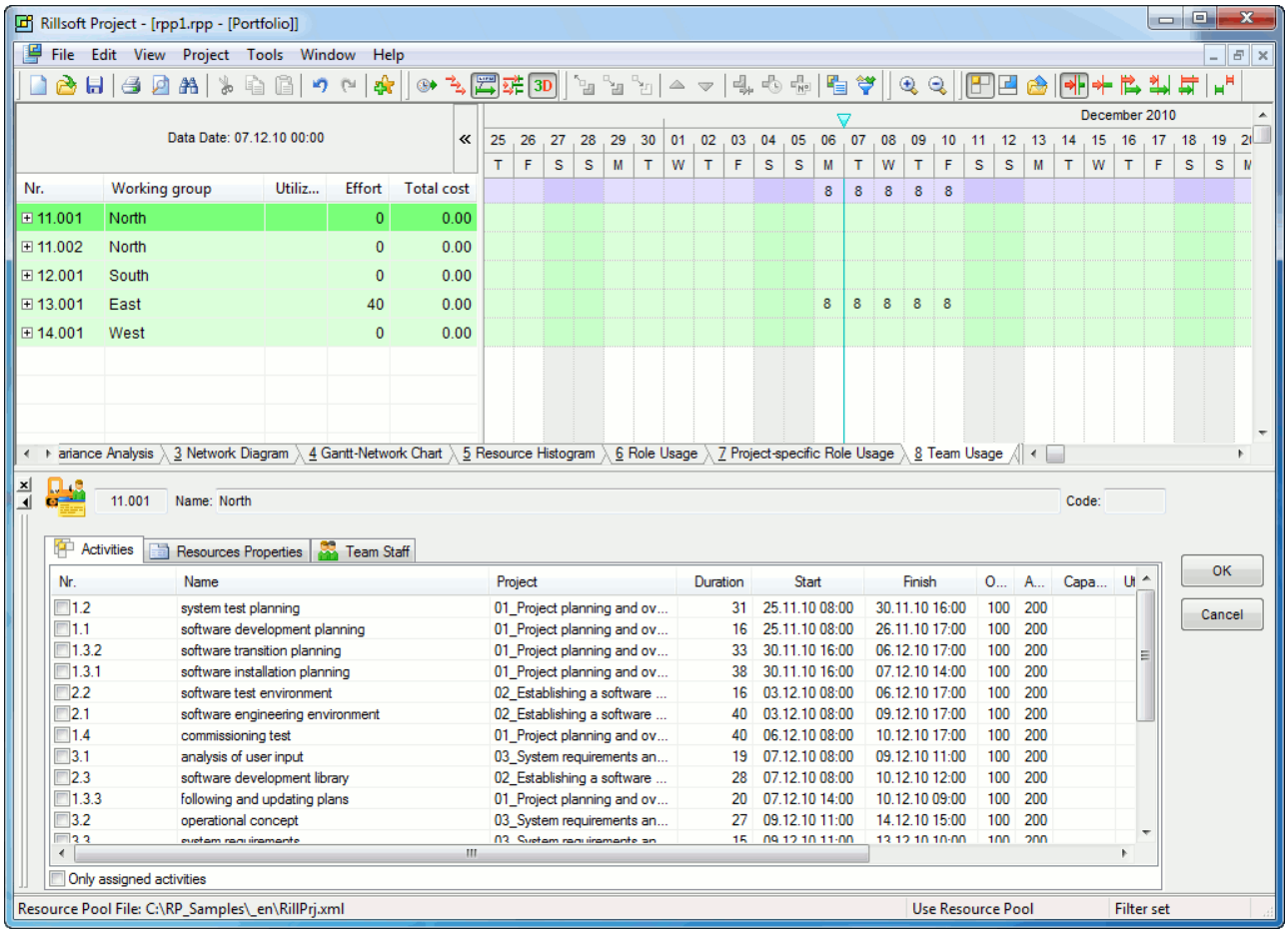
Assign activities to a team in the view Team utilization

In order to assign activities to a team, do the following:

1. Select the view **Team utilization**.
2. Select the menu item **Project / Filter**.
   The dialogue box **Filter** opens.



3. Remove the tick of the check box **Offer only used resources for selection** to view all teams from the resource pool in the list.
4. You can mark the check box **Roles** and transfer all teams to the view Team utilization. **Alternatively**, you can mark only selected teams.
5. Click on the button **OK**.
6. Select a team which you want to assign activities to in the table of the view Team utilization.
   The tab **Activities** in the window Resource properties lists activities from the project schedule.



7. Mark the check boxes of the activities.
8. You can, among others, define the **utilization and effort** of the teams for an activity.
9. Mark the check boxes of the activities.
10. Click on the button **OK**.

Team properties during assignation

During assignation, you can refine team properties by controlling and defining the following values for each of the activities:

- Readiness of a team
- Availability of a team
- Capacity of a team
- Utilization of a team
- Effort of a team
- Notes regarding to a team.

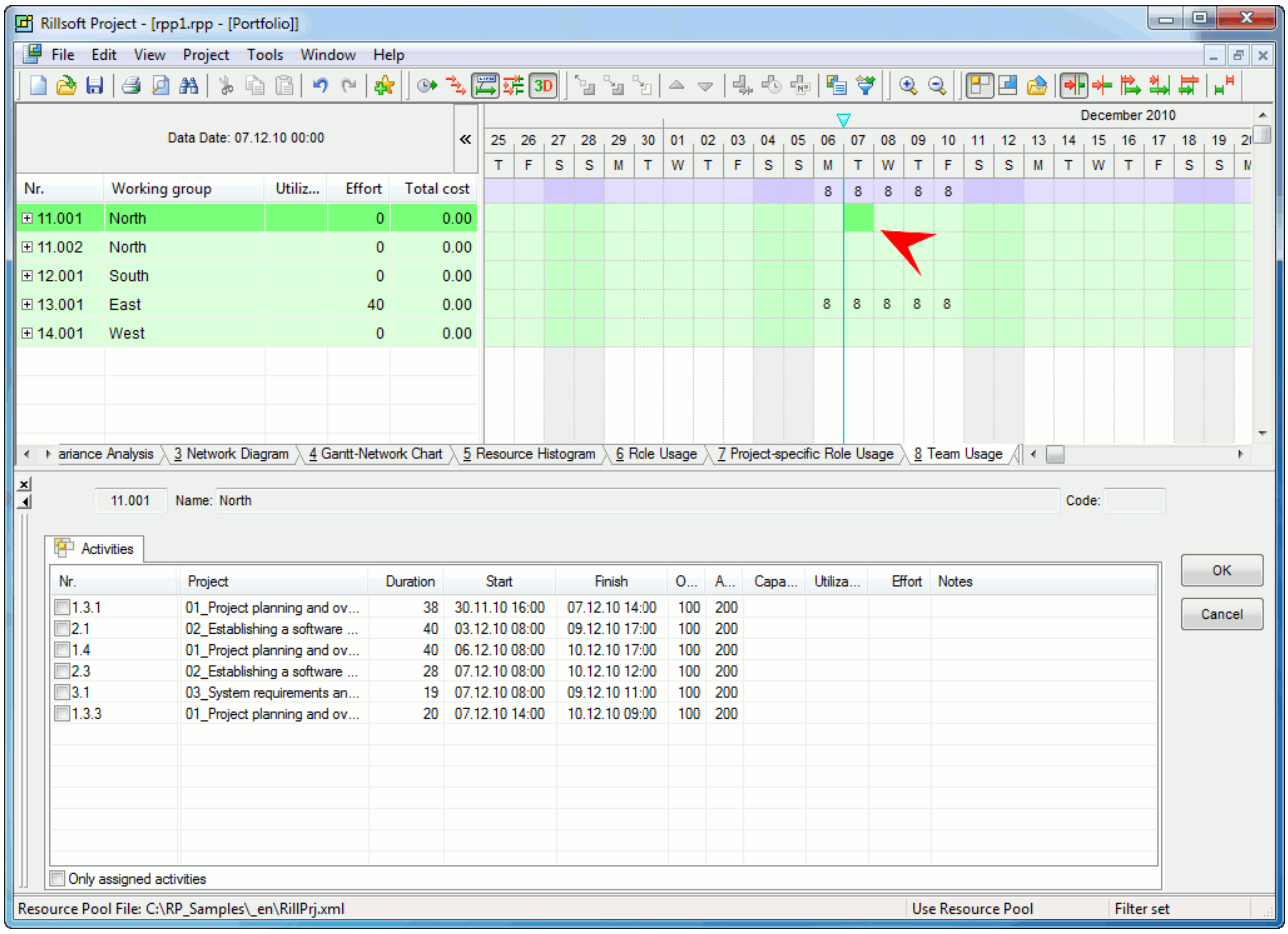
Selection of activity

During this assignation, you can determine the activity list by activating /deactivating the following options:

- **Assigned activities only**, lists only assigned activities.

Activities at a specific date

You can filter activities that are due at a specific date.
If you leftclick on a cell showing the result from the row Team and column Date, you will only be displayed the activities that were defined for this particular period of time.


Rillsoft Project - [rpp1.rpp - [Portfolio]]
File Edit View Project Tools Window Help
Data Date: 07.12.10 00:00
December 2010
Nr. Working group Utiliz... Effort Total cost
11.001 North 0 0.00
11.002 North 0 0.00
12.001 South 0 0.00
13.001 East 40 0.00
14.001 West 0 0.00
ariance Analysis 3 Network Diagram 4 Gantt-Network Chart 5 Resource Histogram 6 Role Usage 7 Project-specific Role Usage 8 Team Usage
11.001 Name: North Code:
Activities
Nr. Project Duration Start Finish O... A... Capa... Utiliza... Effort Notes
1.3.1 01_Project planning and ov... 38 30.11.10 16:00 07.12.10 14:00 100 200
2.1 02_Establishing a software ... 40 03.12.10 08:00 09.12.10 17:00 100 200
1.4 01_Project planning and ov... 40 06.12.10 08:00 10.12.10 17:00 100 200
2.3 02_Establishing a software ... 28 07.12.10 08:00 10.12.10 12:00 100 200
3.1 03_System requirements an... 19 07.12.10 08:00 09.12.10 11:00 100 200
1.3.3 01_Project planning and ov... 20 07.12.10 14:00 10.12.10 09:00 100 200
Only assigned activities
OK
Cancel
Resource Pool File: C:\RP_Samples_en\RillPrj.xml
Use Resource Pool
Filter set

Assign activities to an employee in the Capacity alignment personnel

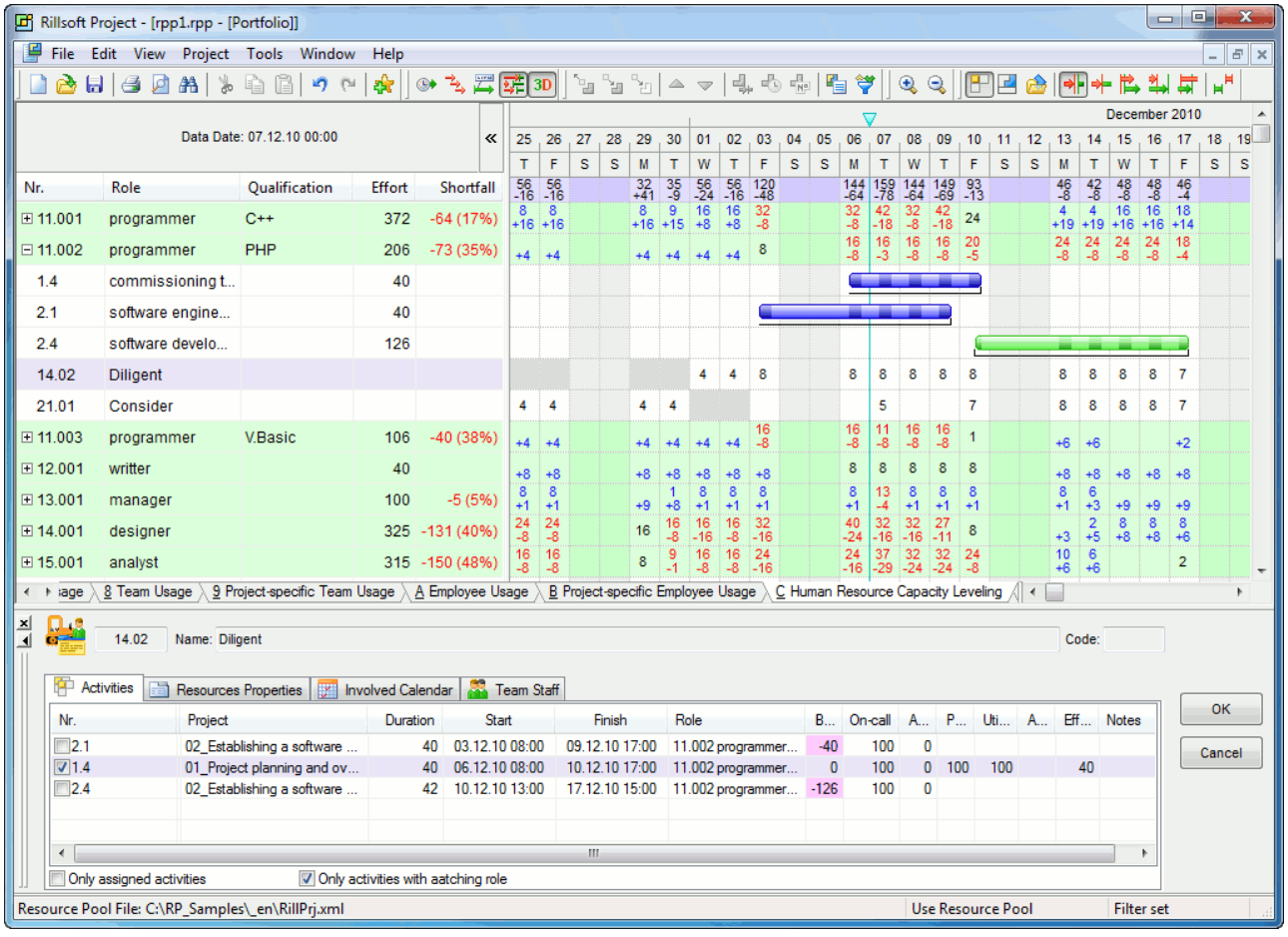
Important! You already need to have the following completed:

Set up a project schedule including activities.

- Set up employees in the resource pool and described them with roles.
- Assigned the roles to the activities.

In order to assign activities to employees, do the following:

1. Select the view **Capacity alignment personnel**.
2. Click on a role in the table to **unhide employees** in the context menu.
3. Select the employee to whom you want to assign activities.
   The tab **Activities** in the window Resource properties lists activities from the project schedule.
   Tip If you have the option **Activities with matching role only** activated, the employee will be offered only activities to which this role has been assigned.



4. Mark the check boxes of the activities.
5. You can, among others, define the **utilization and effort** of an employee for an activity.
6. Mark the check boxes of the corresponding activities.
7. Click on the button **OK**.

Employee properties during assignation

In this assignation, you can refine role properties by controlling and defining the following values for each of the activities:

- Readiness of an employee
- Availability of an employee
- Productivity of an employee
- Utilization of an employee
- Absence of an employee
- Effort of an employee
- Notes regarding to an employee.

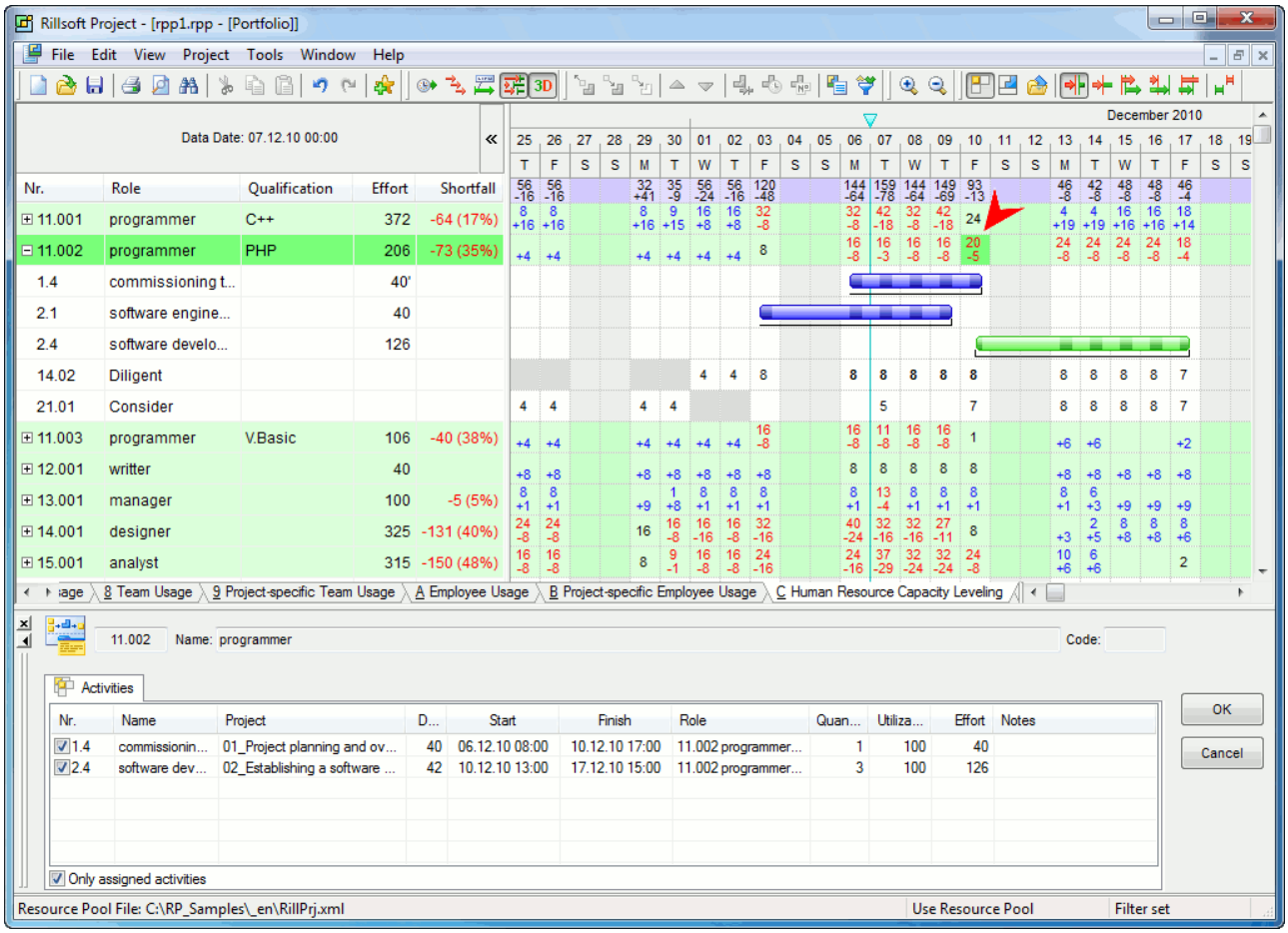
Selection of activity

During the assignation, you can determine the activity list by activating /deactivating the following options:

- **Assigned activities only**, lists only assigned activities.
- **Activities with matching role only** is important for employee assignation. It lists only activities to which a role executed by an employee has already been assigned.

Activities at a specific date

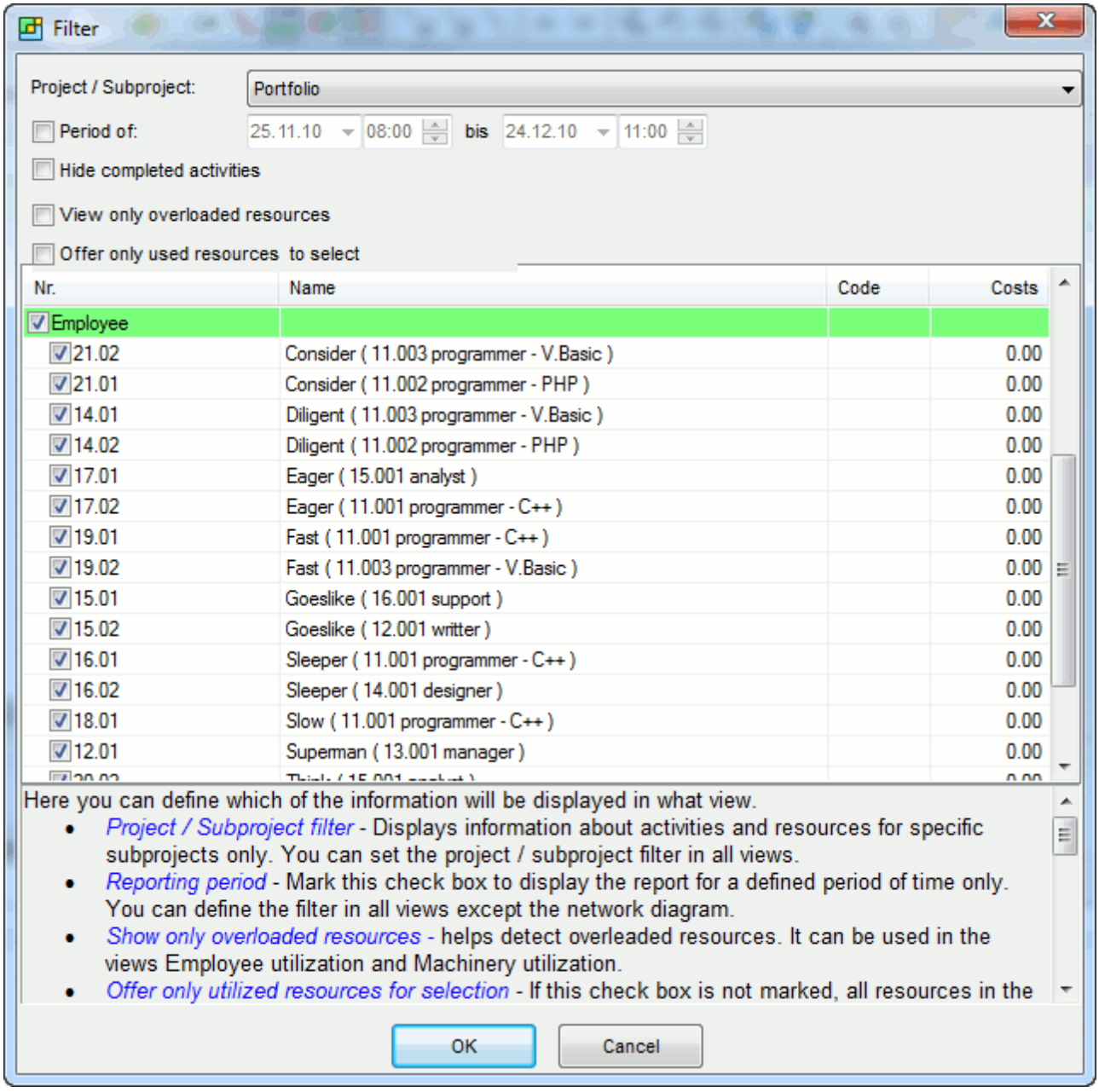
You can filter activities that are due at a specific date.
If you leftclick on a cell showing the result from the row Resource and column Date, you will only be displayed the activities that were defined for this particular period of time.



Assign activities to an employee in the view Employee utilization

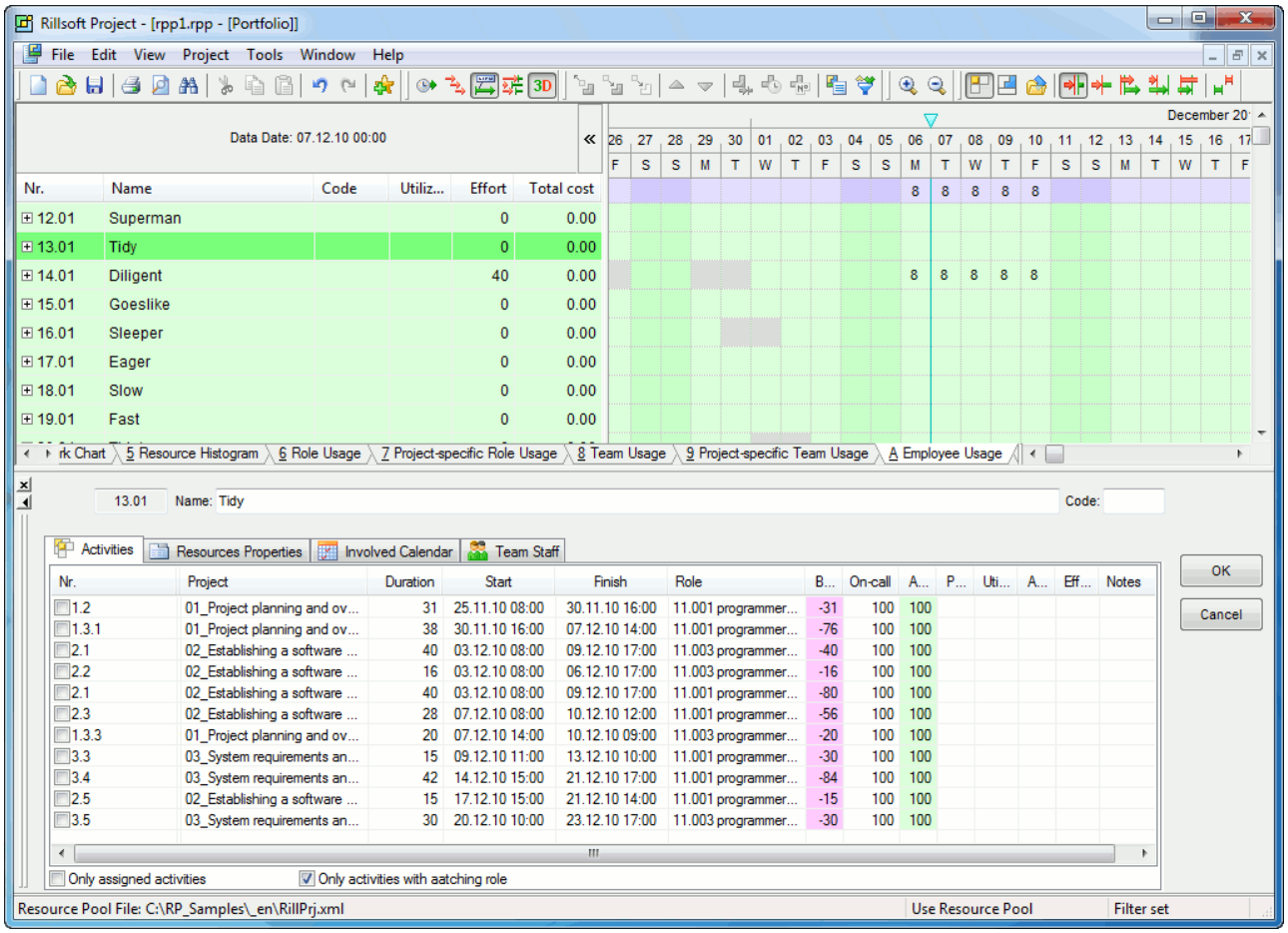
Important! A project schedule including activities and the employees required in the resource pool should already been set up at this time.
In order to assign activities to employees, do the following:

1. Select the view **Employee utilization**.
2. Select the menu item **Project / Filter**.
   The dialogue box **Filter** opens.



3. Remove the tick of the check box **Offer only used resources for selection** to view all employees from the resource pool in the list.
4. You can mark the check box **Employees** and transfer all employees to the view Employee utilization.
   Alternatively, you can mark only selected employees.
5. Click on the button **OK**.

6. Select the employee which you want to assign activities to in the table of the view Employee utilization.
   The tab **Activities** in the window Resource properties lists activities from the project schedule.
   Tip If an employee has several roles, the activity will be shown as many times as the number of roles the employee has.
   For instance, Mr Smith can work as programmer of C++ and Basic, which means all activities will be listed twice, so as to allow him to be assigned to one activity under several roles.



7. Mark the check boxes of the activities.
8. You can, among others, define the **utilization and effort** of an employee for an activity.
9. Mark the check boxes of the activities.
10. Click on the button **OK**.

Employee properties during assignation

In this assignation, you can refine role properties by controlling and defining the following values for each of the activities:

- Readiness of an employee
- Availability of an employee
- Productivity of an employee
- Utilization of an employee
- Absence of an employee
- Effort of an employee
- Notes regarding to an employee.

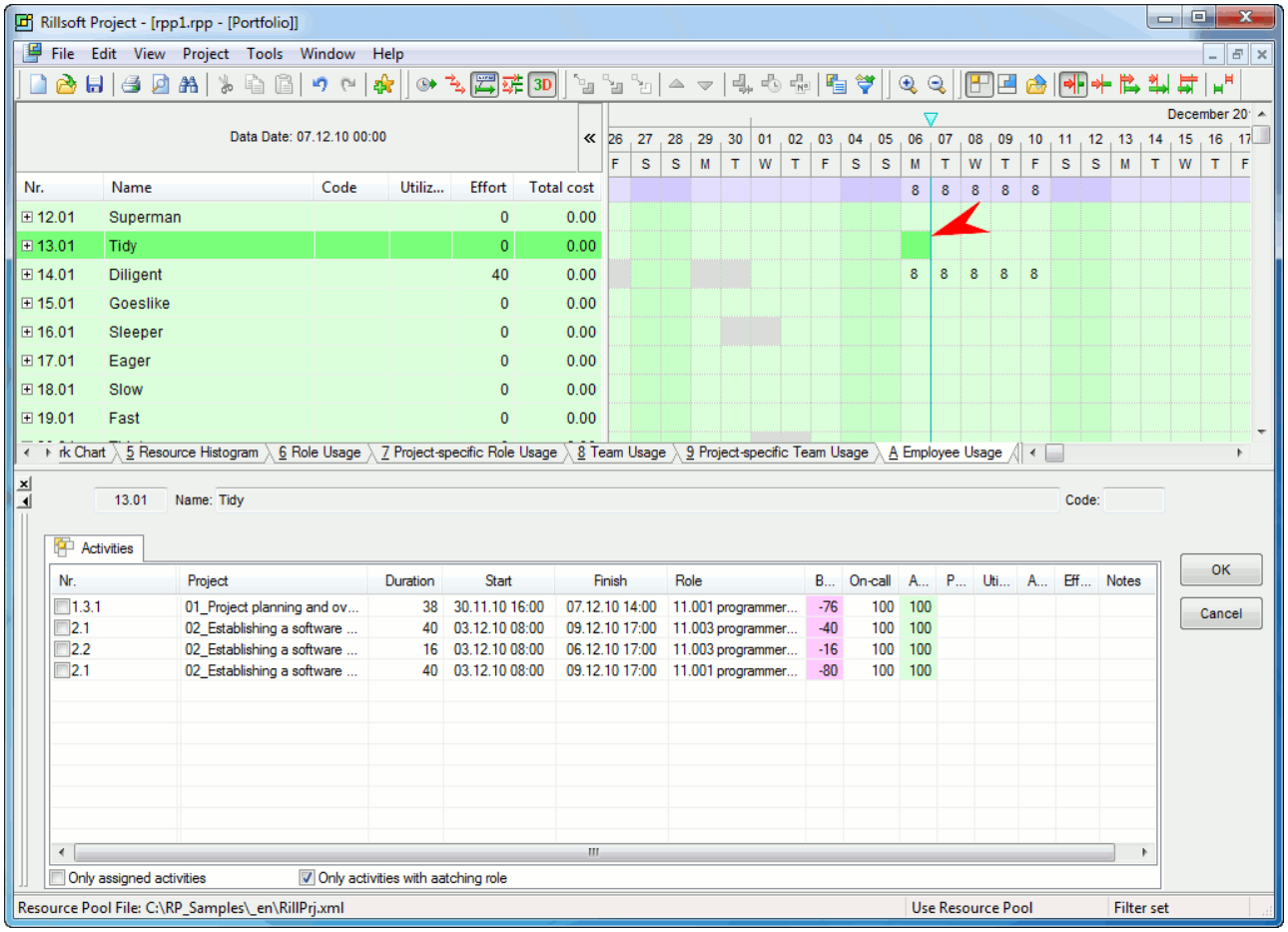
Selection of activity

During the assignation, you can determine the activity list by activating /deactivating the following options:

- **Assigned activities only**, lists only assigned activities.
- **Activities with matching role only** is important for employee assignation. It lists only activities to which a role executed by an employee has already been assigned.

Activities at a specific date

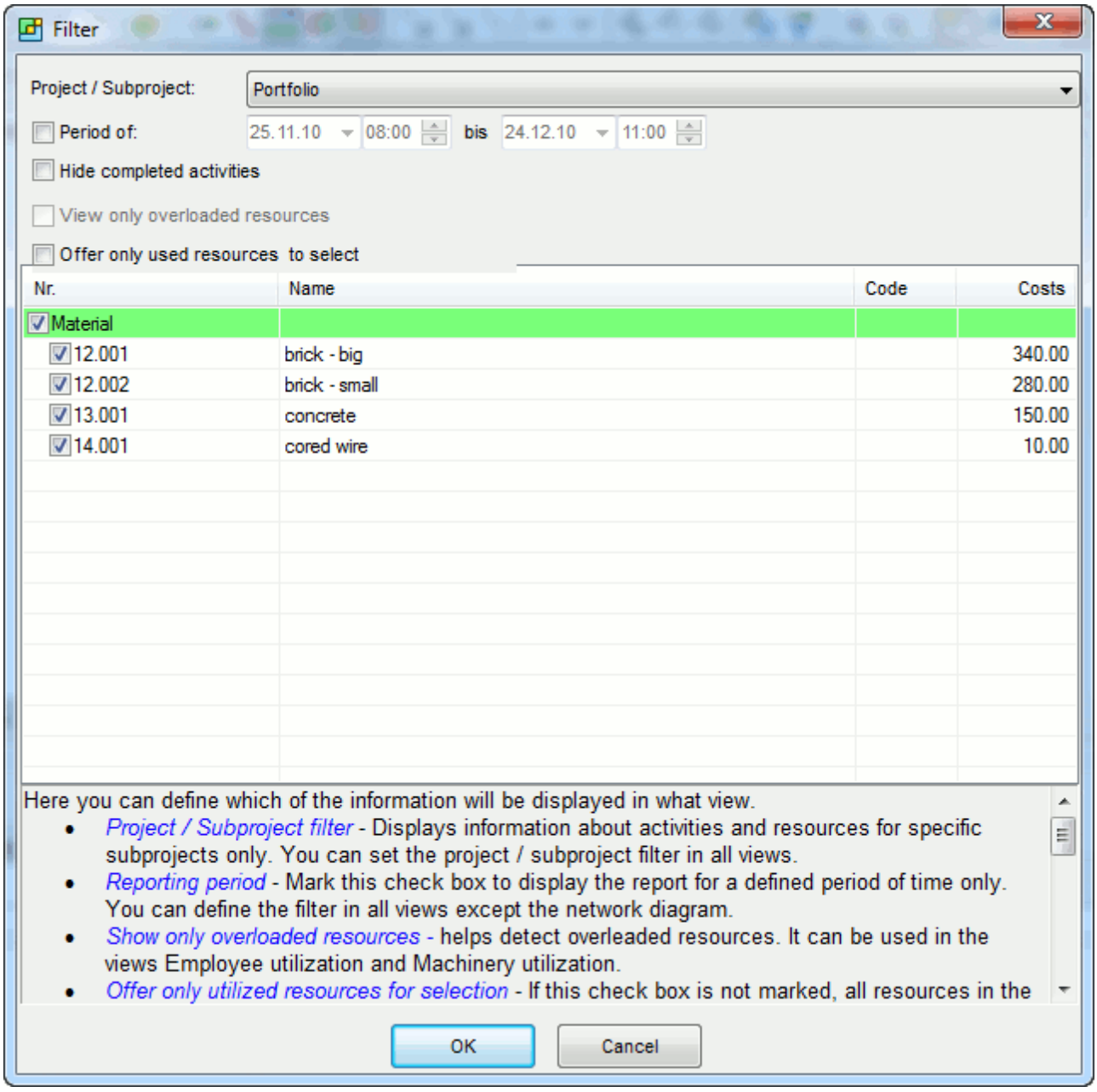
You can filter activities that are due at a specific date.
If you leftclick on a cell showing the result from the row Employee and column Date, you will only be displayed the activities that were defined for this particular period of time.



Assign activities to a material in the view Material requirements

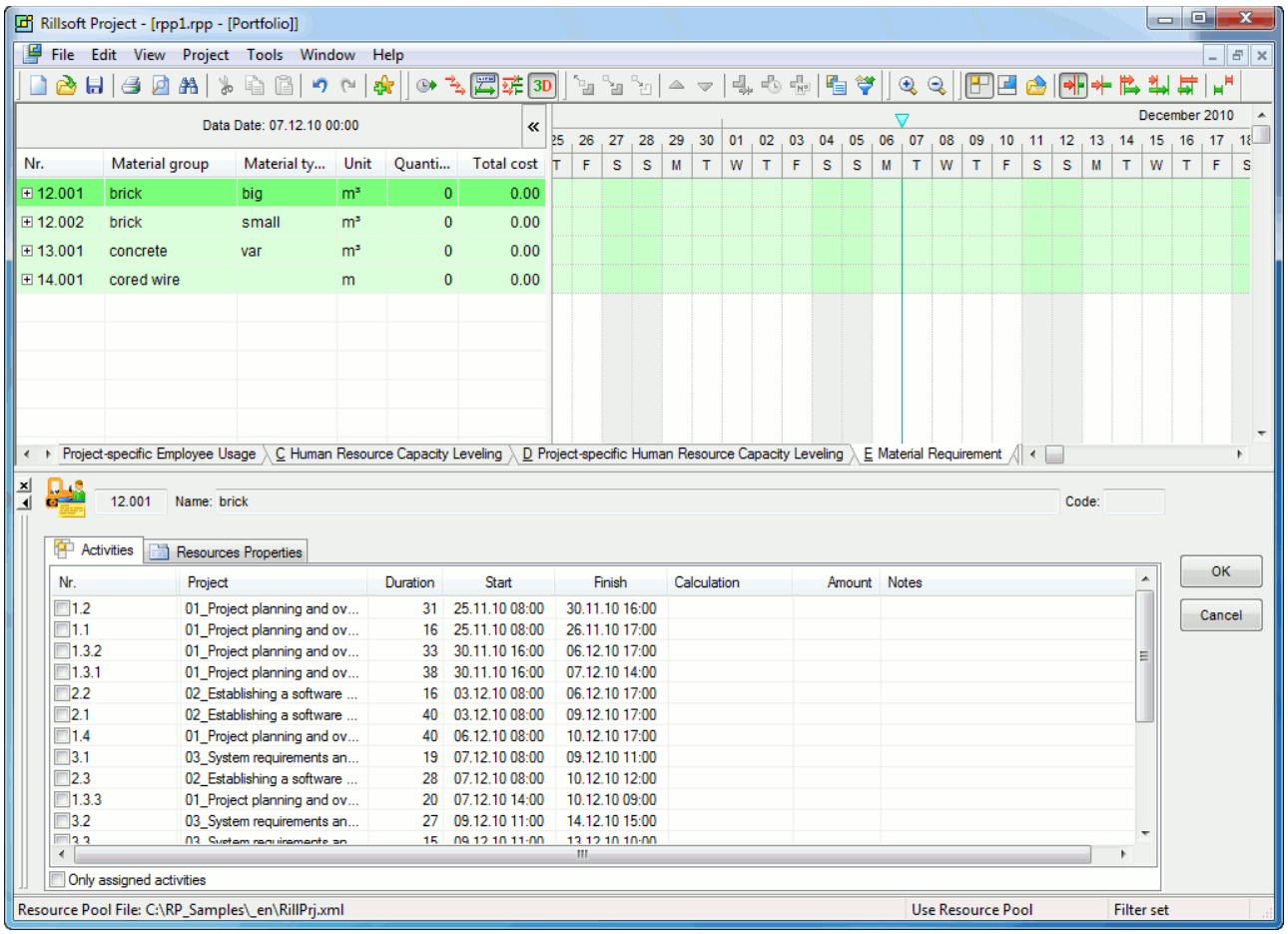
In order to assign activities to a material, do as follows:

1. Select the view **Material requirements**.
2. Select the menu item **Project / Filter**.
   The dialogue box **Filter** opens.



3. Remove the tick of the check box **Offer only used resources for selection** to view all materials from the resource pool in the list.
4. You can mark the check box **Material** and transfer all marials to the view Material requirements.
   Alternatively, you can mark only selected materials.
5. Click on the button **OK**.
6. Select the material which you want to assign activities to in the table of the view Material requirements.

The tab **Activities** in the window Resource properties lists activities from the project schedule.



7. Mark the check boxes of the activities.
8. You can, among others, define the **quantity** of a material for an activity.
9. Mark the check boxes of the activities.
10. Click on the button **OK**.

Material properties during assignation

During assignation, you can refine material properties by controlling and defining the following values for each of the activities:

- Calculation of a material
- Quantity of a material
- Notes regarding to a material.

Selection of activity

During this assignation, you can determine the activity list by activating /deactivating the following options:

- **Assigned activities only**, lists only assigned activities.

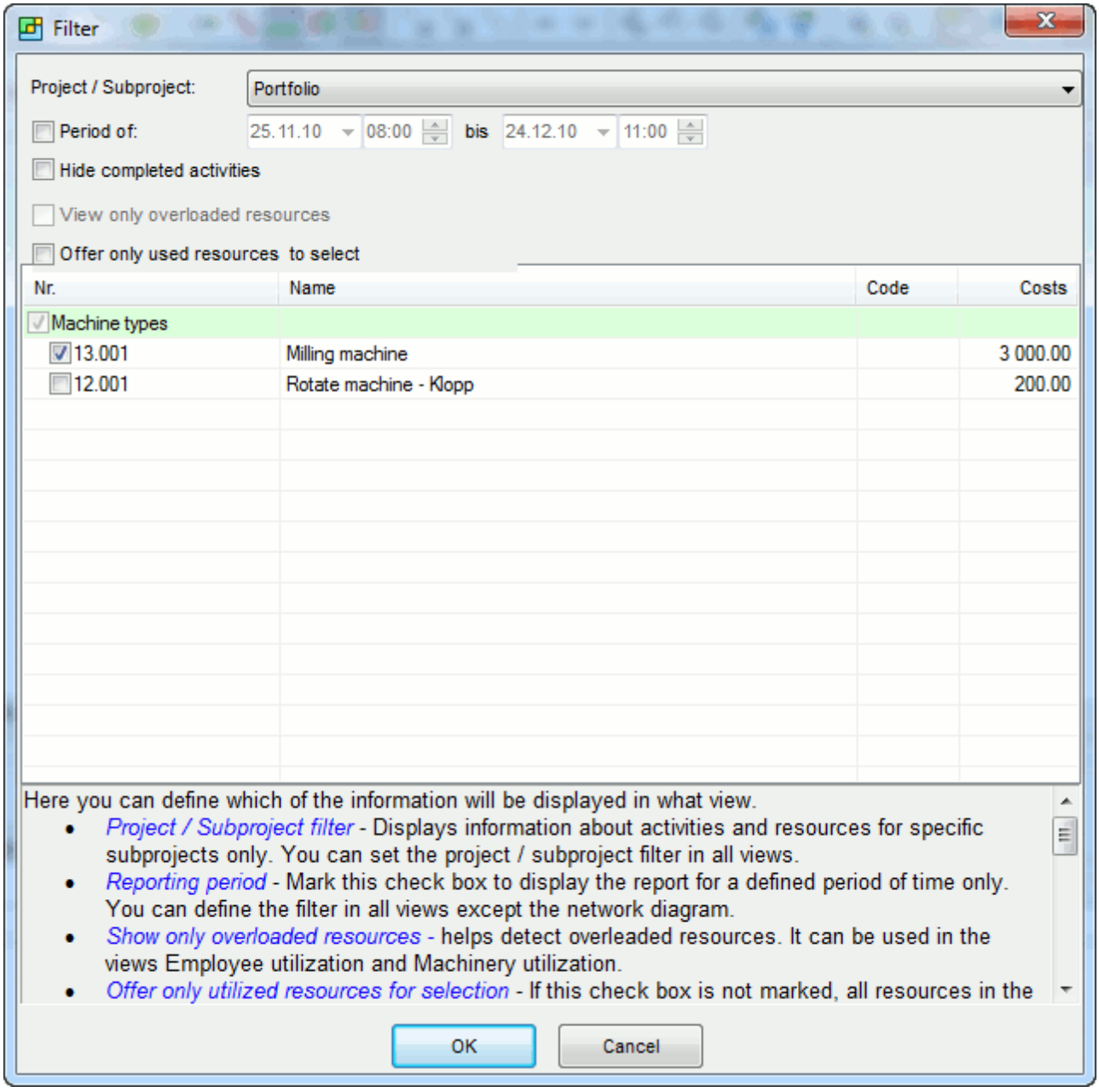
Activities at a specific date

You can filter activities that are due at a specific date.
If you leftclick on a cell showing the result from the row Material and column Date, you will only be displayed the activities that were defined for this particular period of time.

Assign activities to a machine type in Machine type utilization

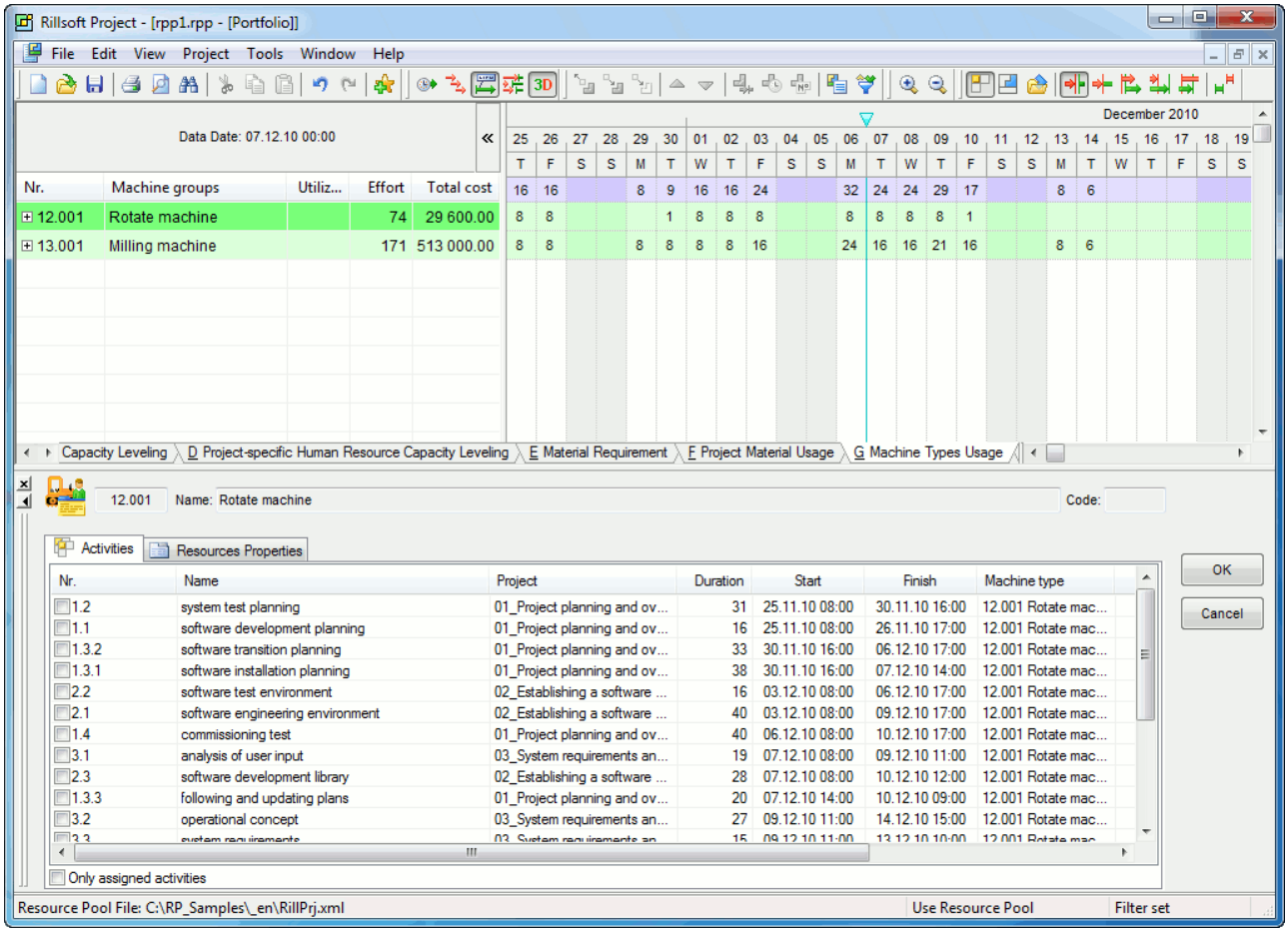
Important! A project schedule including activities and the roles required in the resource pool should already been set up at this time.
In order to assign activities to a machine type, do the following:

1. Select the view **Machine type utilization**.
2. Select the menu item **Project / Filter**.
   The dialogue box **Filter** opens.



3. Remove the tick of the check box **Offer only used resources for selection** to view all machine types from the resource pool in the list.
4. You can mark the check box **Roles** and transfer all machine types to the view Machine type utilization.
   Alternatively, you can mark only selected machine types.
5. Click on the button **OK**.

6. Select a machine type which you want to assign activities to in the table of the view Machine type utilization.
   The tab **Activities** in the window Resource properties lists activities from the project schedule.



7. Mark the check boxes of the activities.
8. You can, among others, define the **quantity, utilization and notes** of a machine type for an activity.
9. Mark the check boxes of the activities.
10. Click on the button **OK**.

Machine type properties during allocation

In this allocation, you can refine role properties by controlling and defining the following values for each of the activities:

- Numb er of machine type
- Utilization of machine type
- Notes regarding to a machine type

Selection of activity

During the assignation, you can determine the activity list by activating /deactivating the following options:

- **Assigned activities only**, lists only assigned activities.

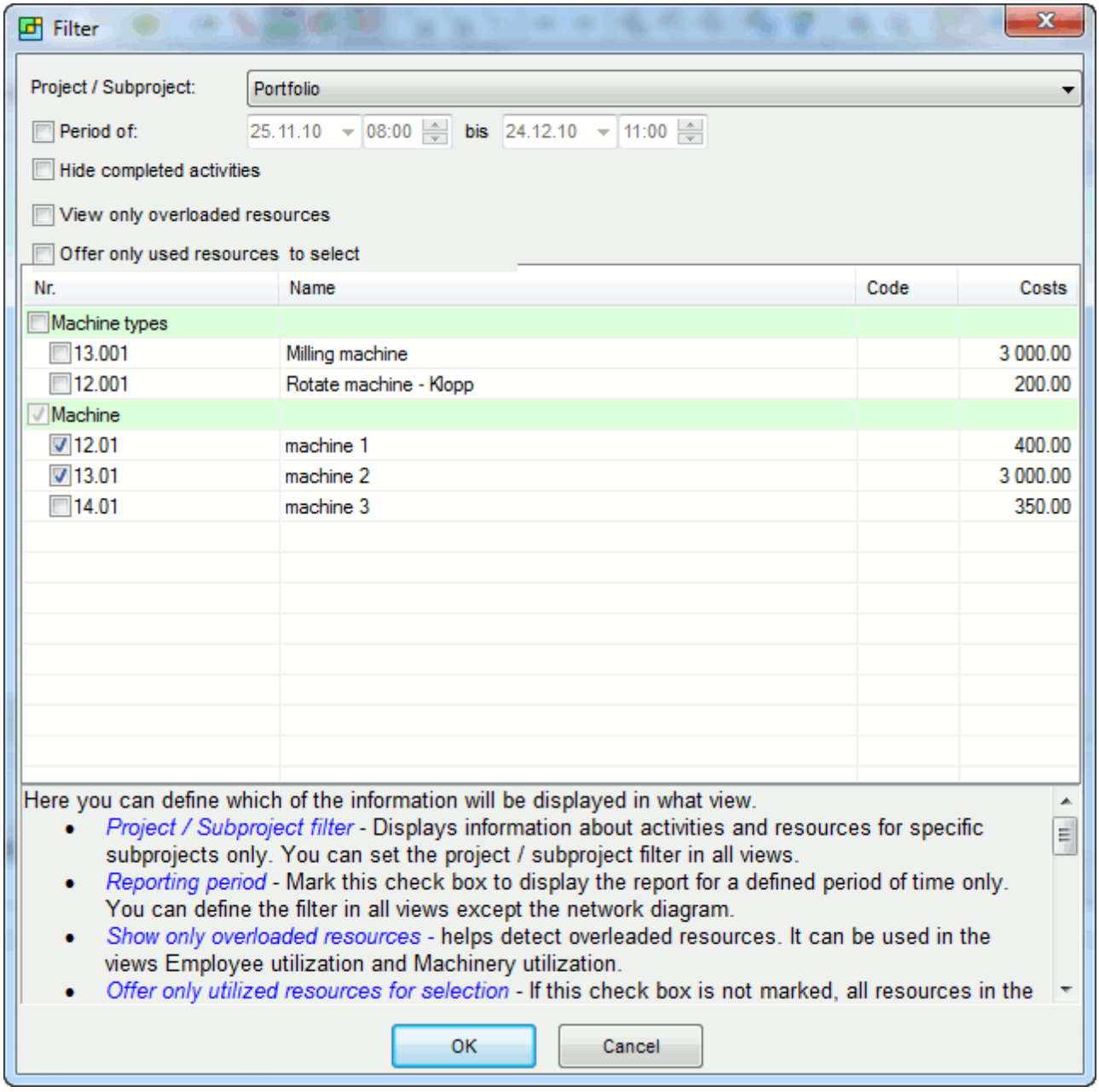
Activities at a specific date

You can filter activities that are due at a specific date.
If you leftclick on a cell showing the result from the row Machine type and column Date, you will only be displayed the activities that were defined for this particular period of time.

Assign activities to machines in the view Machine utilization

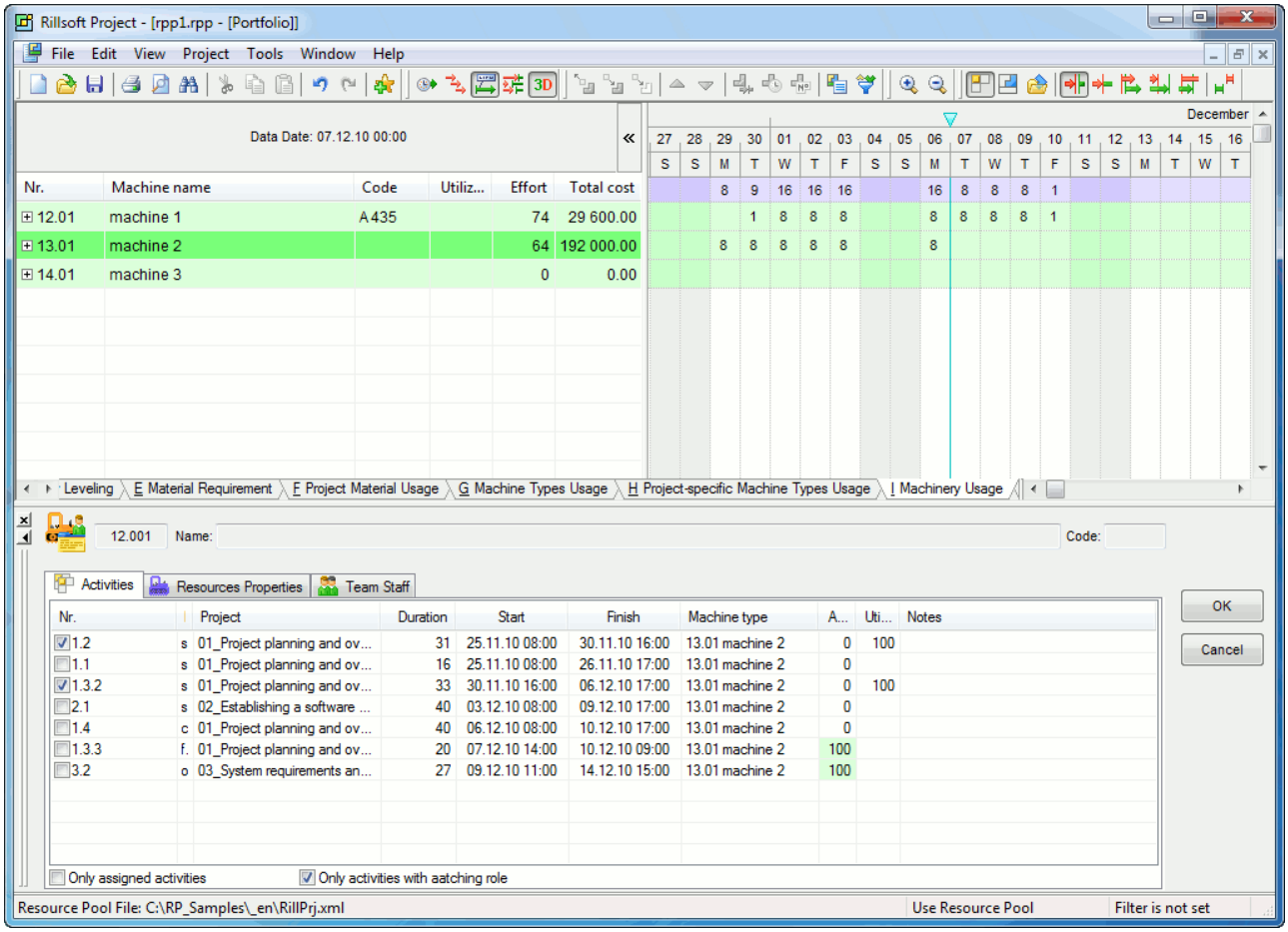
Important! A project schedule including activities and the machines required in the resource pool should already been set up at this time.
In order to assign activities to a machine, do the following:

1. Select the view **Machine utilization**.
2. Select the menu item **Project / Filter**.
   The dialogue box **Filter** opens.



3. Remove the tick of the check box **Offer only used resources for selection** to view all machines from the resource pool in the list.
4. You can mark the check box **Roles** and transfer all machines to the view Machine utilization.
   Alternatively, you can mark only selected machines.
5. Click on the button **OK**.

6. Select a machine which you want to assign activities to in the table of the view Machine utilization.
   The tab **Activities** in the window Resource properties lists activities from the project schedule.



7. Mark the check boxes of the activities.
8. You can, among others, define the **utilization** of a machine for an activity.
9. Mark the check boxes of the activities.
10. Click on the button **OK**.

Machine properties during assignation

In this assignation, you can refine machine properties by controlling and defining the following values for each of the activities:

- Availability of a machine
- Utilization of a machine
- Notes regarding to a machine.

Selection of activity

During the assignation, you can determine the activity list by activating /deactivating the following options:

- **Assigned activities only**, lists only assigned activities.

Activities at a specific date

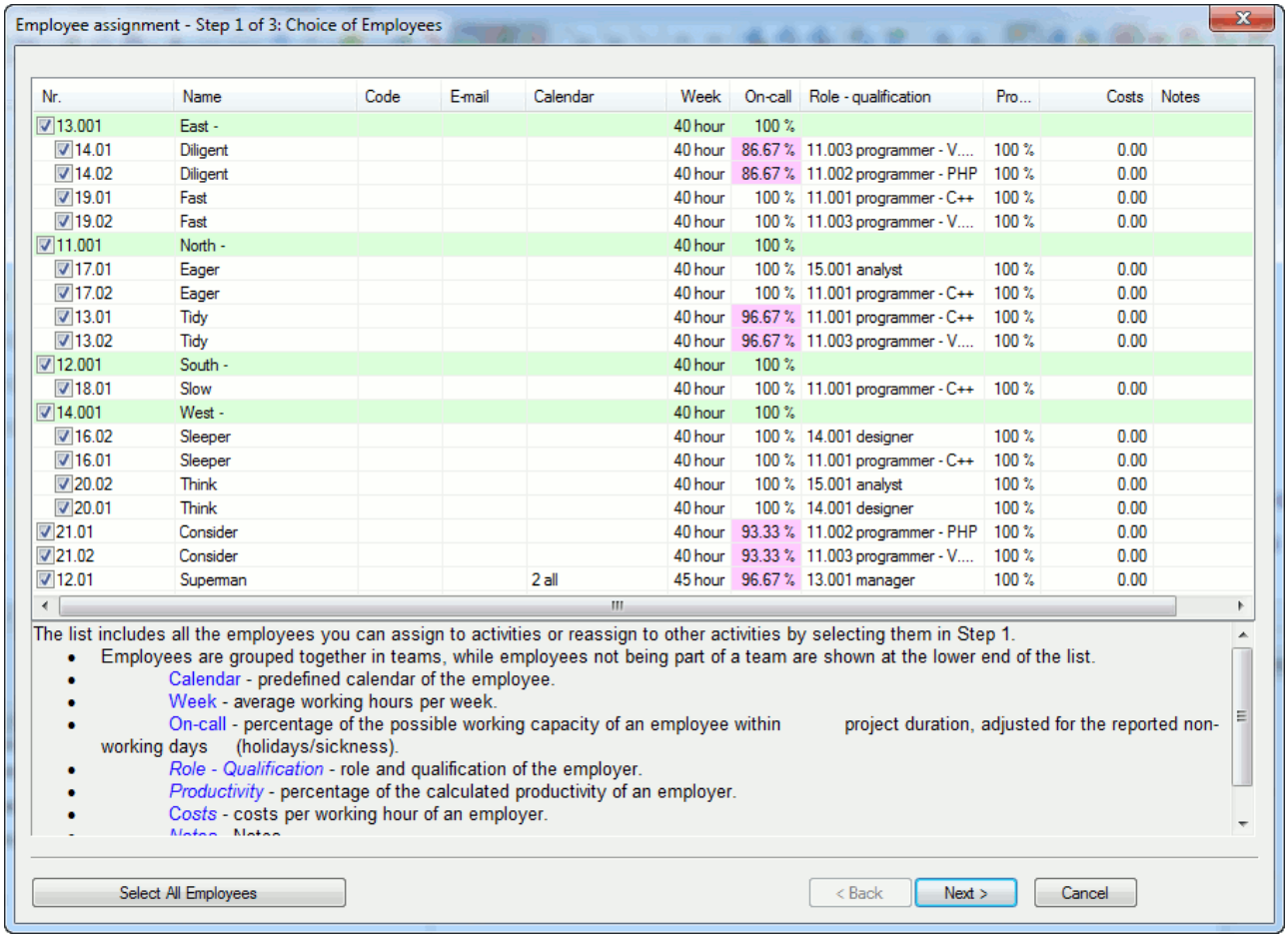
You can filter activities that are due at a specific date.
If you leftclick on a cell showing the result from the row Machine and column Date, you will only be displayed the activities that were defined for this particular period of time.

Assign employees to activities

Requirements: In order to assign employees to activities, you need to first assign personnel resources in the form of roles.

In order to semi-automatically assign employees to activities, you do the following:

1. Select the menu item **Project / Assign employees to activities**.
   The dialogue box **Assigning employees - Step 1 of 3: Selection of employees** opens.

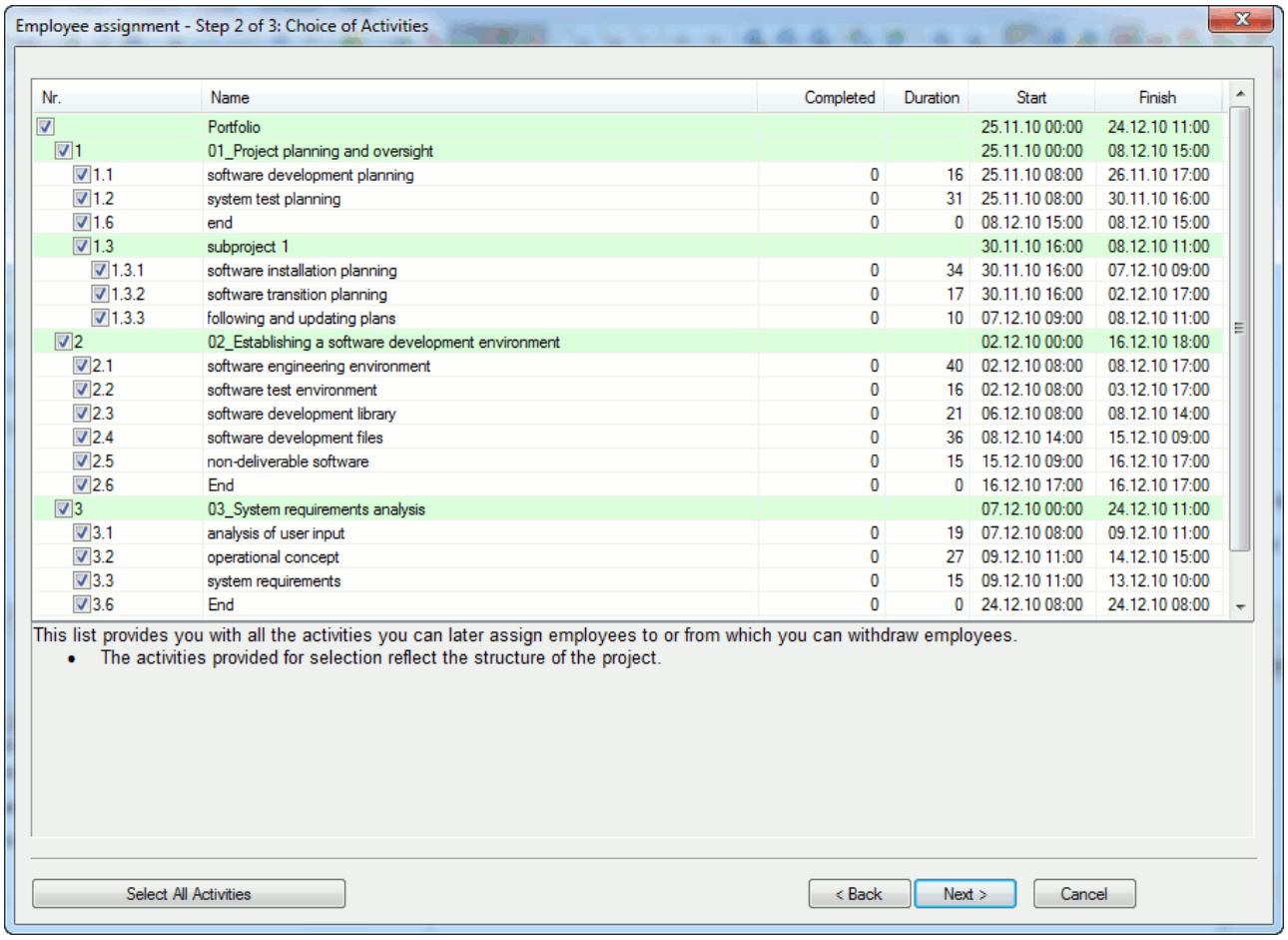


   The list includes all the employees you can assign to activities or reassign to other activities by selecting them in Step 1.

   Employees are grouped together in teams, while employees not being part of a team are shown at the lower end of the list.

   - **Calendar** - predefined calendar of the employee.
   - **Week** - average working hours per week.
   - **On-call** - percentage of the possible working capacity of an employee within project duration, adjusted for the reported non-working days (holidays/sickness).

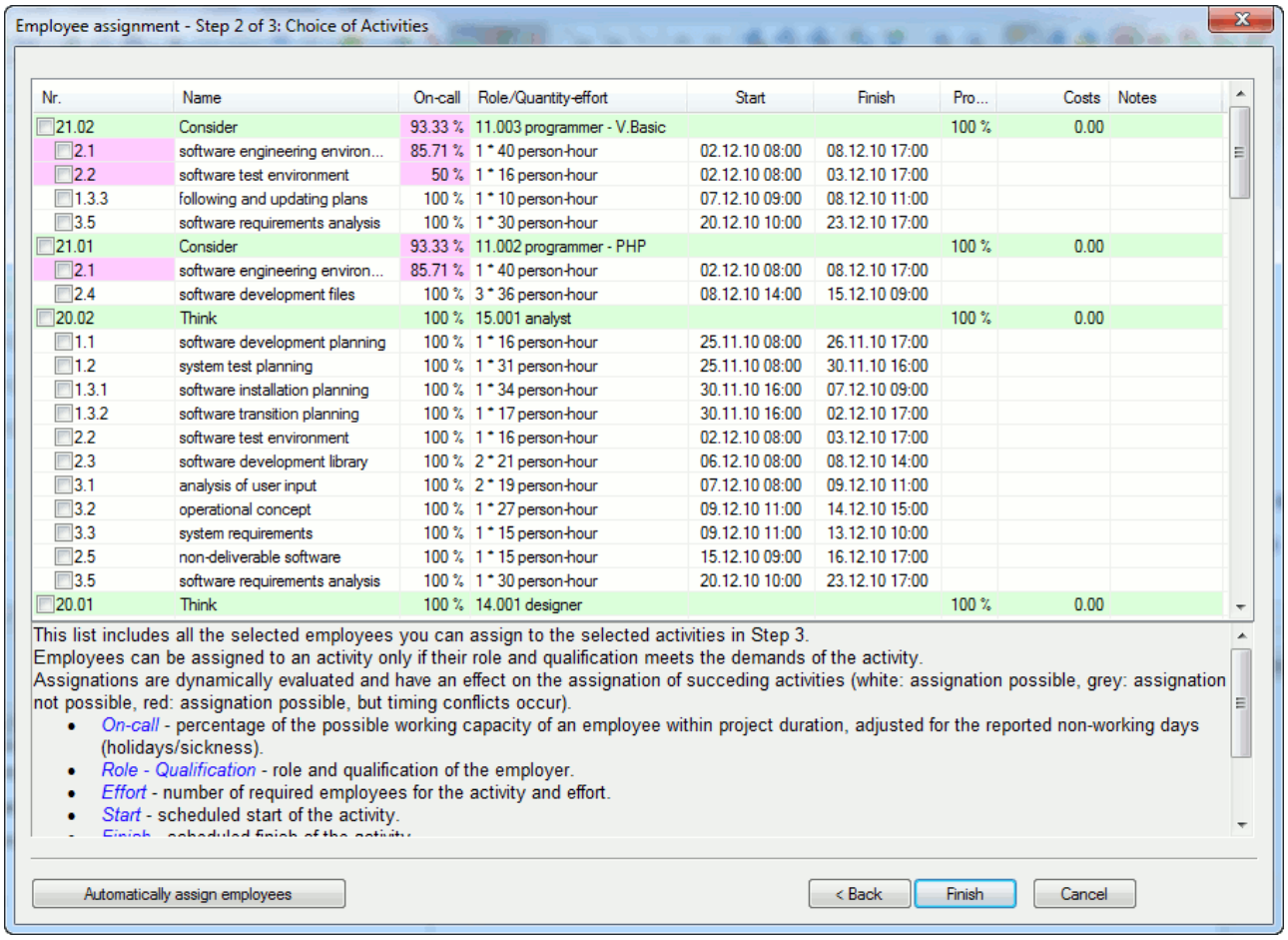
2. Click the check boxes of the employees you would like to assign to activities in the column **No.**.
   You may also click on the button **Select all employees**.
3. Click on the button **Continue**.
   The dialogue box **Assigning employees - Step 2 of 3: Selection of activities** opens.



This list provides you with all the activities you can later assign employees to.

- The activities provided for selection reflect the structure of the project.

4. Click on the check boxes for the activities to whom you want to assign employees. You may also click on the button **Select all employees**.
5. Click on the button **Continue**.
   The dialogue box **Assigning employees - Step 3 of 3: Assigning employees to activities** opens.



This list includes all the selected employees you can assign to the selected activities in Step 3.

Employees can be assigned to an activity if their role and qualification meets the demands of the activity.

Assignations are automatically evaluated and have an effect on succeding activities (white: assignation possible, grey: assignation not possible as already covered by an employee, red: assignation possible, but timing conflicts occur).

- **On-call** - percentage of the possible working capacity of an employee within activity duration, adjusted for the reported non-working days (holidays/sickness).
- **Role** - role of the employee.
- **Effort** - number of required employees for the activity and effort.
- **Start** - scheduled start of the activity.
- **Finish** - scheduled finish of the activity.

6. Click on the check box for the activity you want to assign to an employee (for instance, because the employee can be on-call for 100% of the total activity duration). Assignation options are dynamically adjusted.

   Note: When assigning, we recommend you using the following strategy to avoid overload of resources: first assign activities to employees who can cover activities at 100% (column **On-call**) and productivity at 100%.

7. Repeat Step 6 if necessary.
   You may also click on the button **Assign employees automatically**.
8. Click on the button **Finish**.

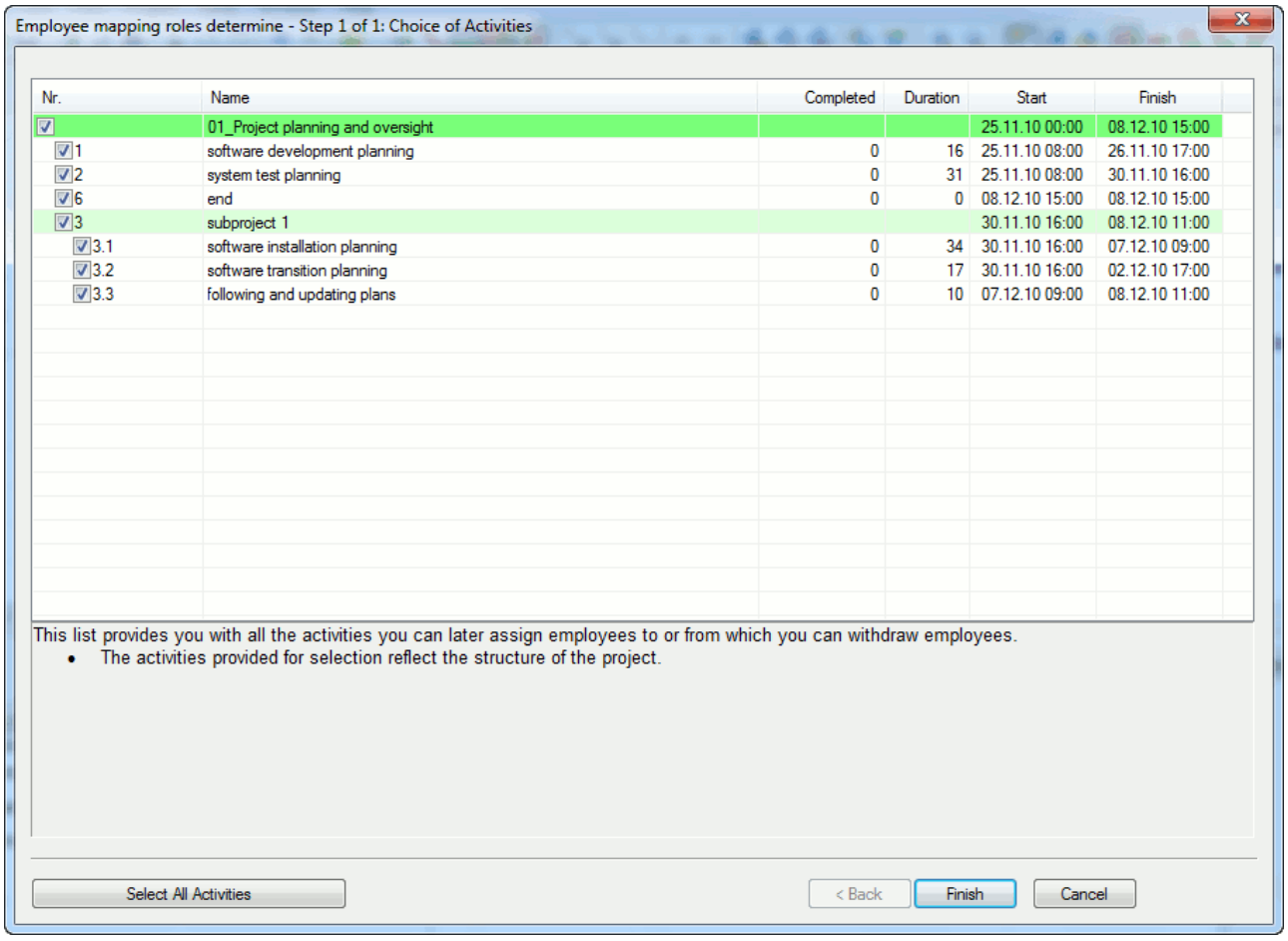
Important! Possible conflicts and overloads are indicated in red, and there is no automatic assignation.

Identify roles from the assignation of employees

If you have assigned real employees to activities without having previously assigend roles, you can identify the required roles from the employee assignation.

In order to identify roles from employee assignation, do as follows:

1. Select the menu item **Project / Identify roles from employee assignation**. The dialogue box **Identify roles from employee assignation - Step 1 of 1: Selection of activities** opens.



   It lists all activities you can select from.

2. Mark the check boxes of the activities in the column number you want to select.
3. Click on the button **Finish**.

Note:

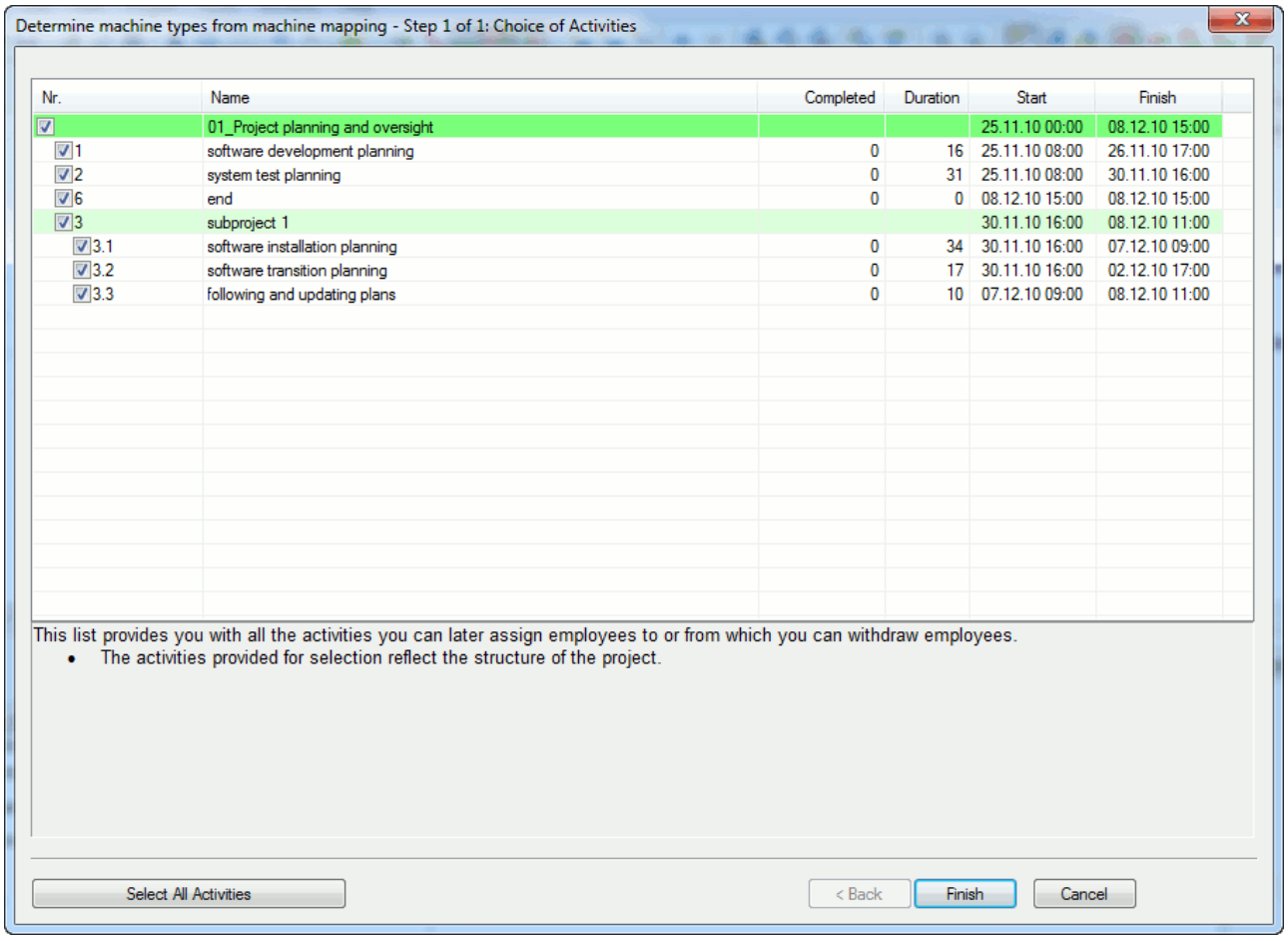
- You can click on the button **Select all activities** to mark all activities at a time.

Identify machine types from machine allocation

If you have allocated real machines to activities without having previously allocated machine types, you can identify the required machine types from the machine allocation.

In order to identify machine types from machine allocation, do as follows:

1. Select the menu item **Project / Identify machine types from machine allocation**. The dialogue box **Identify machine types from machine allocation - Step 1 of 1: Selection of activities** opens.



   It lists all activities you can select from.

2. Mark the check boxes of the activities in the column number you want to select.
3. Click on the button **Finish**.

Note:

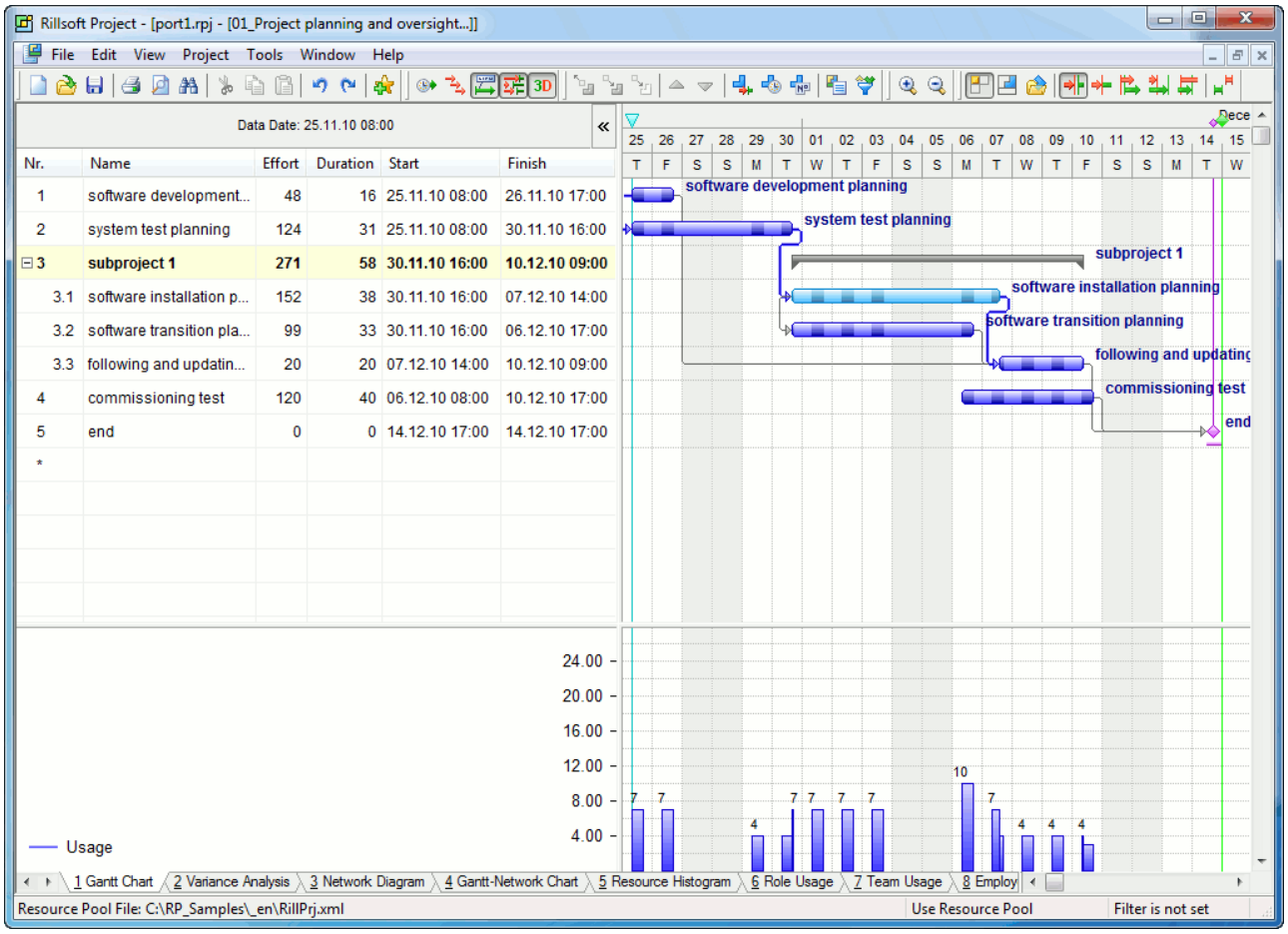
- You can click on the button **Select all activities** to mark all activities at a time.

Optimise a project

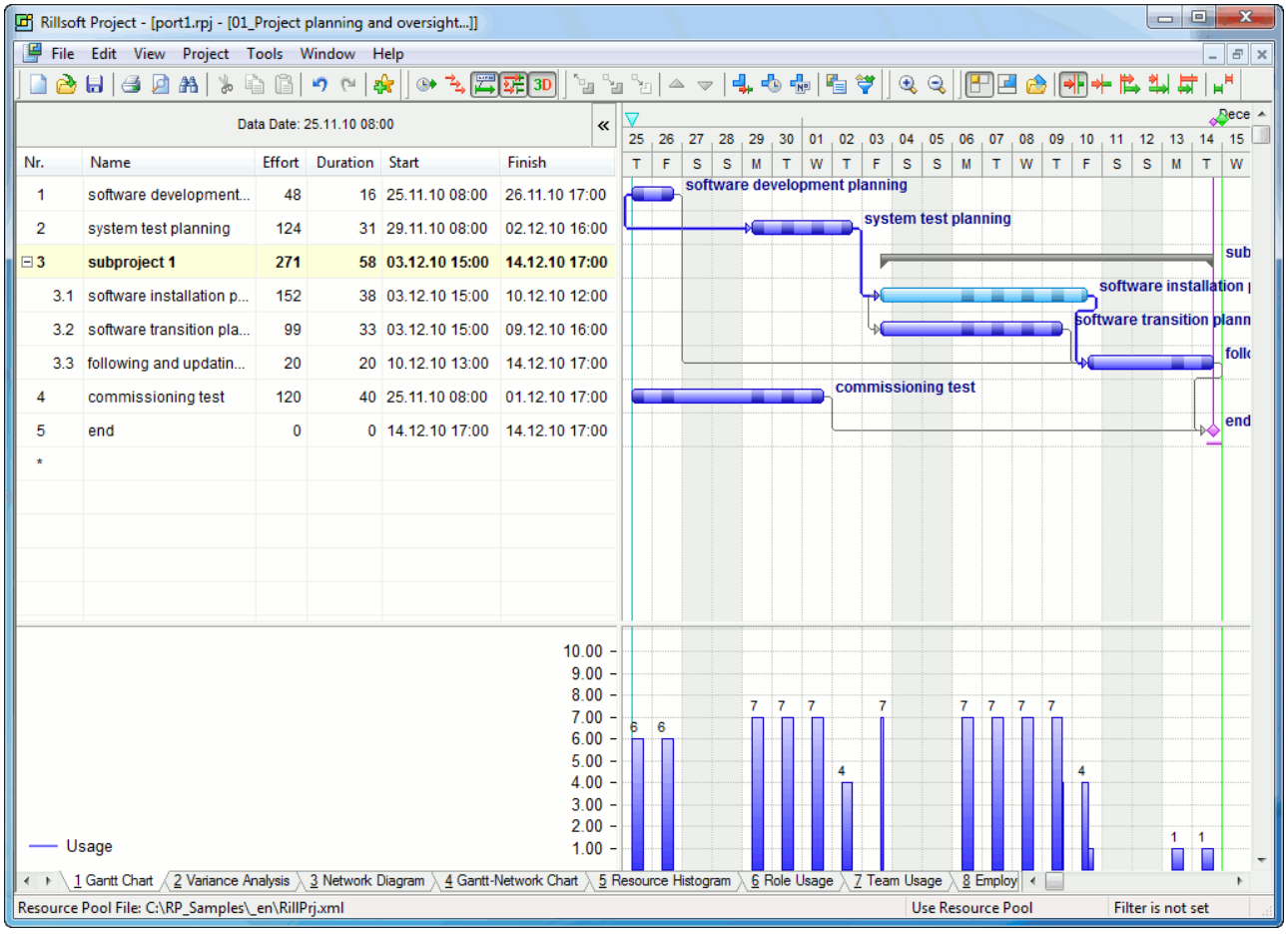
The purpose of the optimisation of a project is to obtain a project schedule that meets a predefined deadline and which makes well-balanced use of resources.

In order to optimise a project, go to the menu item **Project / Optimise resource utilization**.

A project without resource optimisation.



A project after resource optimisation.



Note:

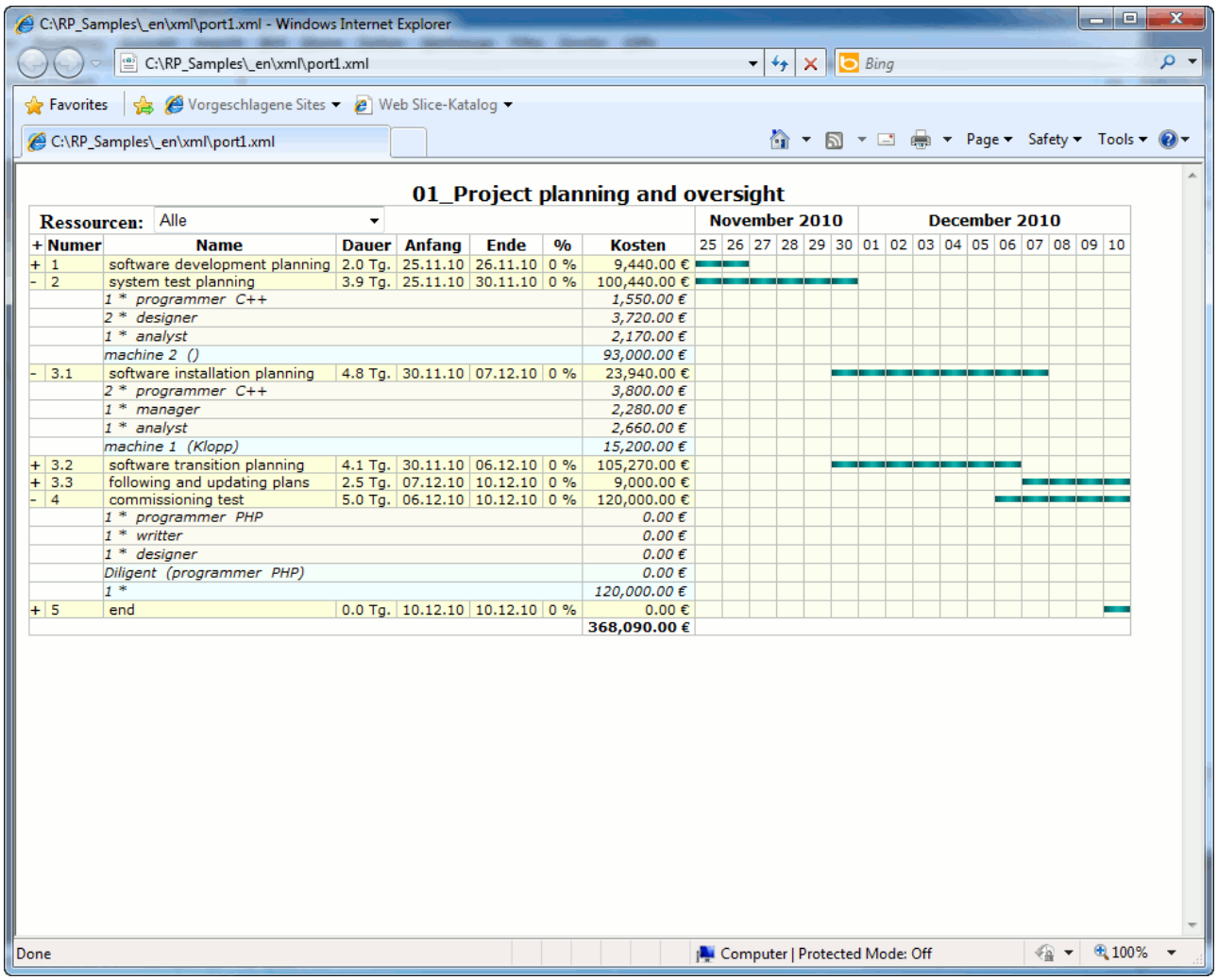
- You can use the check box **Fix** in the window Activity properties (tab **General**, field **Due date**) to ensure that the due date of the activity remains unchanged during optimisation.
- The optimisation process takes the fixed dates of the subprojects into account.
- The command **Optimise resource utilization** in the context menu of the subproject can be used to optimise selected subprojects only.
- The optimisation of personnel resources is done along the following command structure: employees -> teams -> roles (explanation: if it includes employees, the optimisation will ignore teams or roles.)

XML

The function XML export can be used to publish your project data in the intranet.

In order to publish the project in the intranet / internet, do as follows:

1. For this, select the menu item **File / Export / XML for web**.
2. Finally, copy the project and paste it in the web server and create a link to the file.



Note:

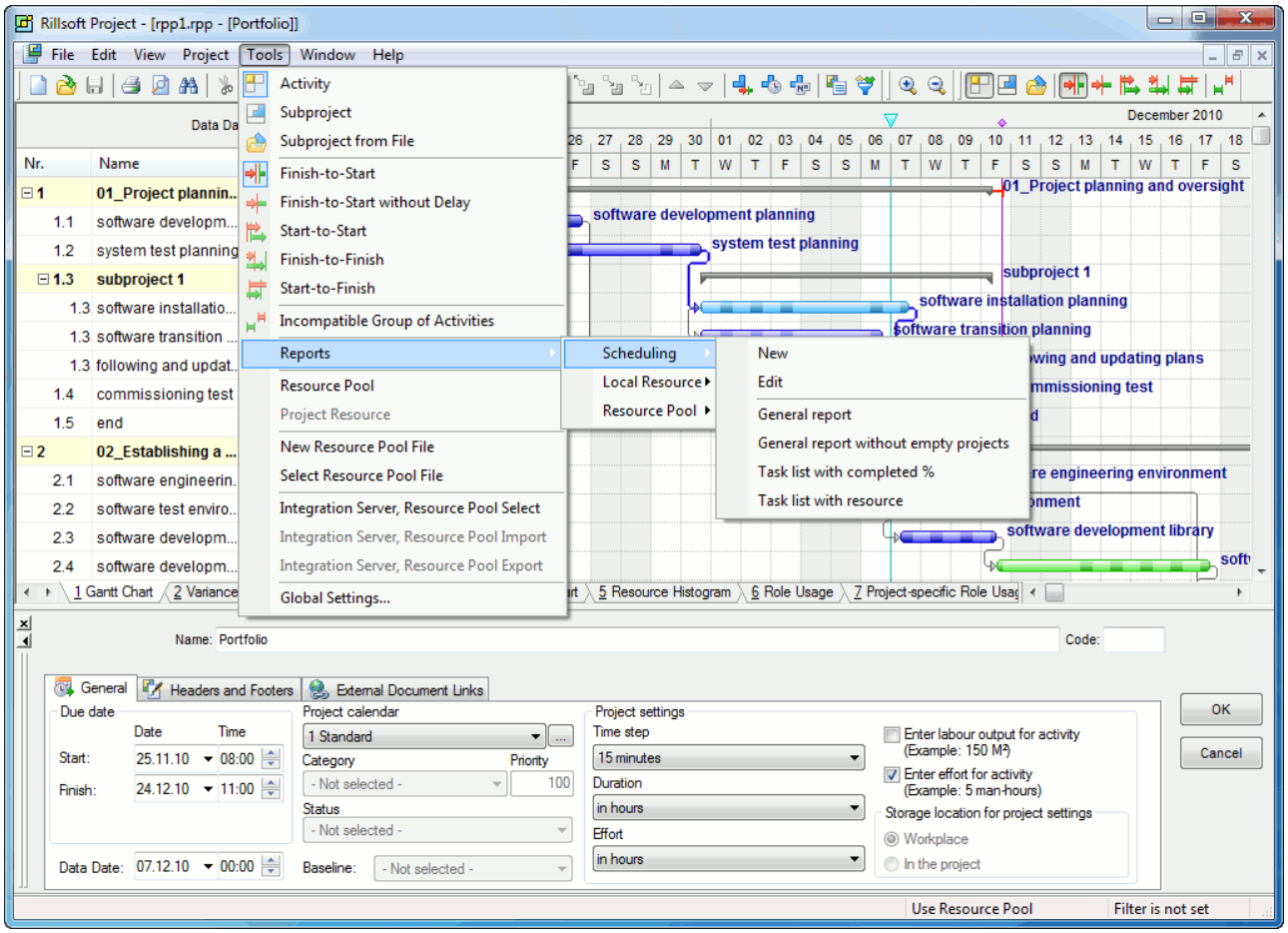
- You can create a stylesheet of your own (see description on the website) or adjust the one included in the delivery to your requirements.

Reporting

Rillsoft Project 5.2 allows you to generate, edit and print a number of different reports.

In order to open a report, do as follows:

1. Select the menu item **Tools / Reports**.
2. Now you can choose between the general project schedule and project resources by selecting either the menu item **Project schedule** or **Project resources**.
3. Execute your preferred task.

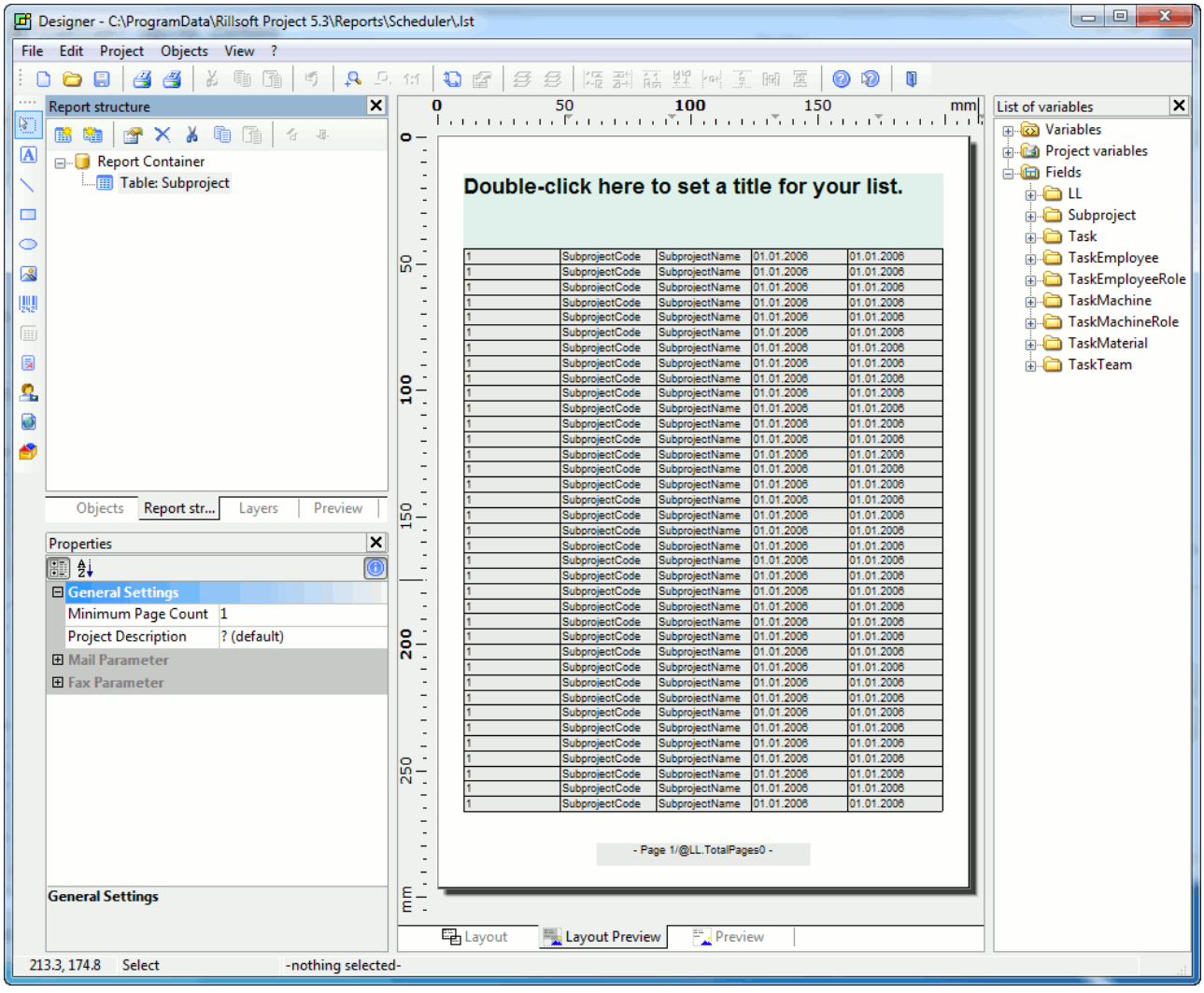


Generate report

In order to generate a new report, do as follows:

1. Select the menu item **Tools / Reports**.
2. Now you can choose between the general project schedule and project resources by selecting either the menu item **Project schedule** or **Project resources**.
3. Select the menu item **Tools / Reports / .../ New**.
4. Follow the commands of the project assistant.
5. Click on the button **Finish**.
6. The Reporting-Designer opens.

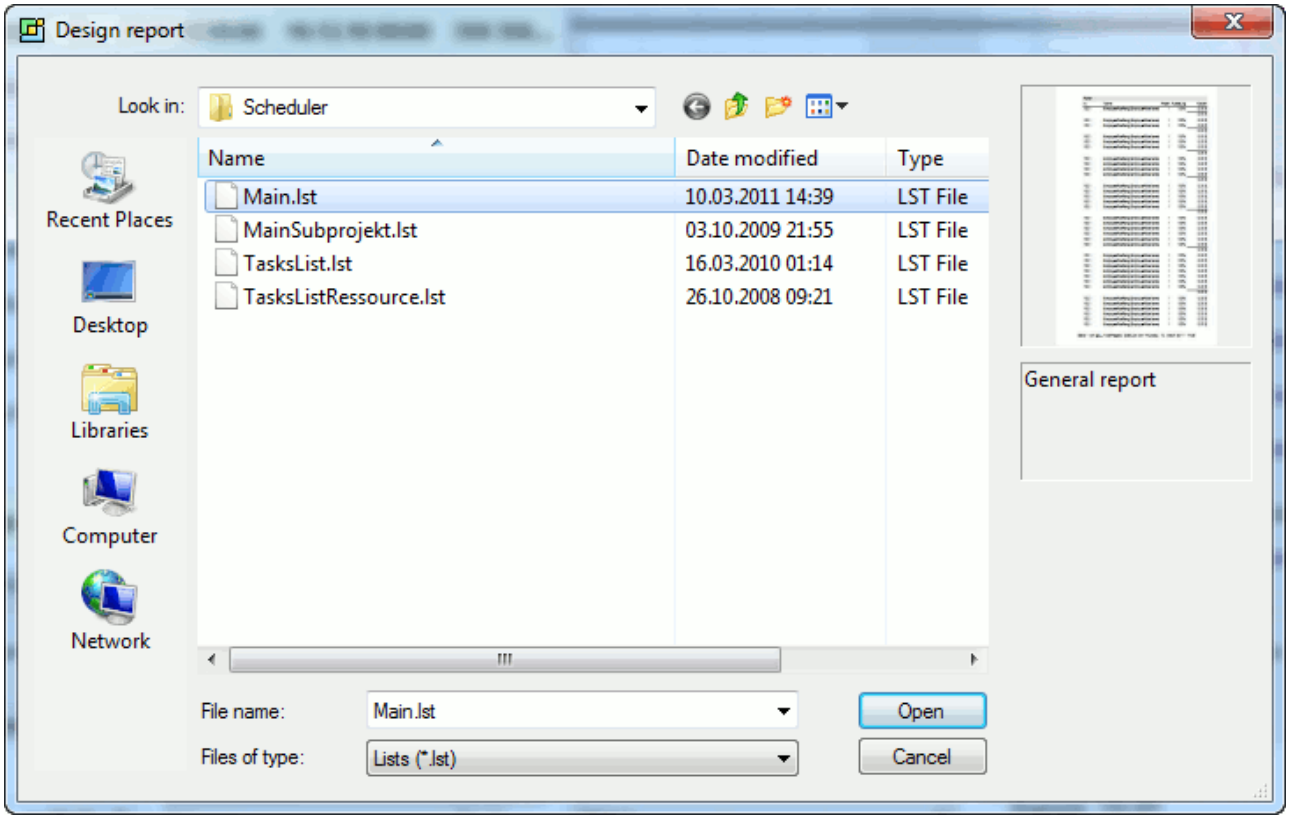
You can view the numerous options of the Reporting-Designer when you open the menu item **? / Overview** in the help menu.



Edit report

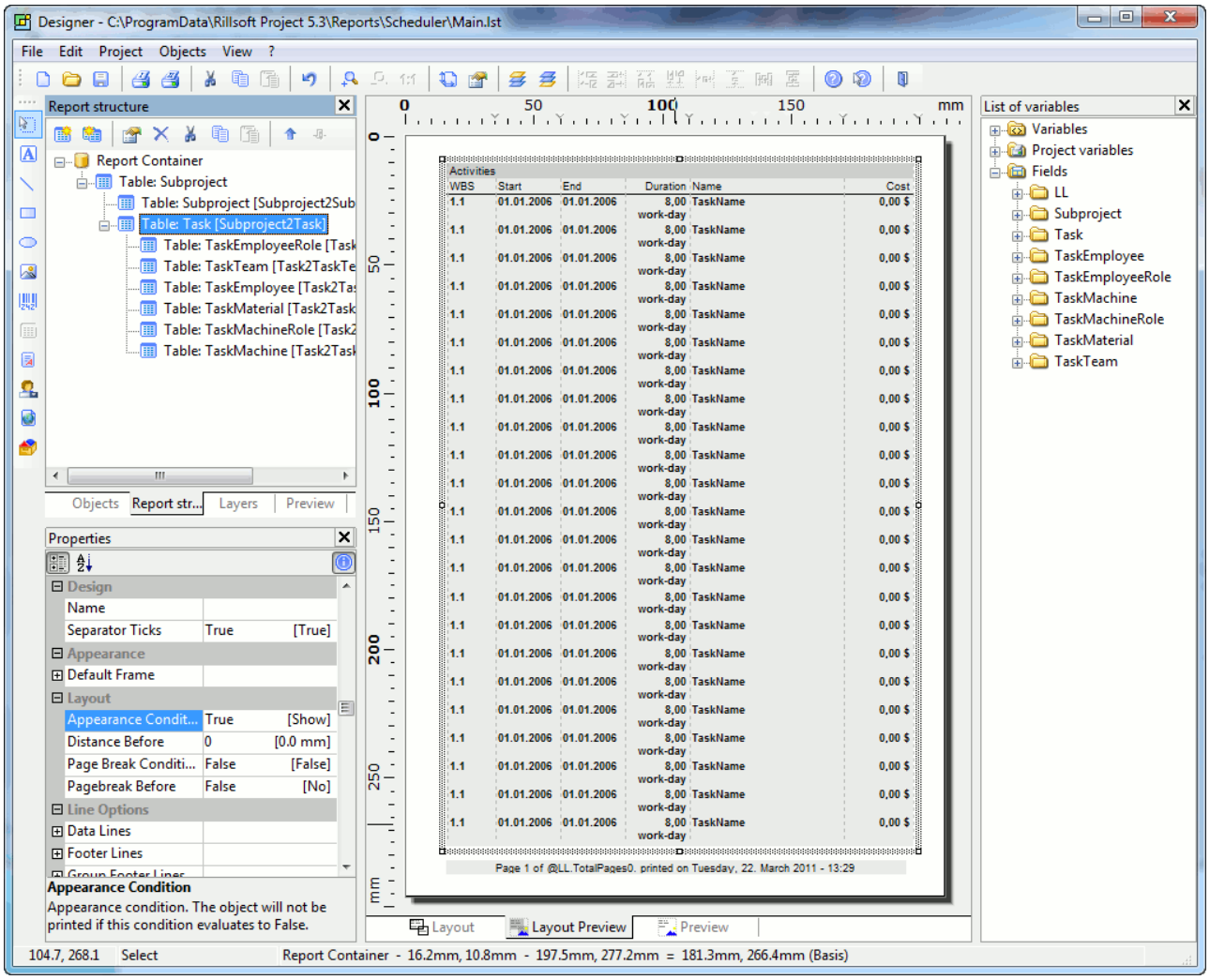
In order to edit a report, do as follows:

1. Select the menu item **Tools / Reports**.
2. Now you can choose between the general project schedule and project resources by selecting either the menu item **Project schedule** or **Project resources**.
3. Select the menu item **Tools / Reports/.../Edit**.
4. The **Reporting-Designer** opens.



5. Select the preferred file.
6. The dialogue**Reporting** appears.

You can view the numerous options of the Reporting-Designer when you open the menu item **? / Overview** in the help menu.


Designer - C:\ProgramData\Rillsoft Project 5.3\Reports\Scheduler\Main.lst
File Edit Project Objects View ?
Report structure
Report Container
Table: Subproject
Table: Subproject [Subproject2Sub
Table: Task [Subproject2Task]
Table: TaskEmployeeRole [Task
Table: TaskTeam [Task2TaskTe
Table: TaskEmployee [Task2Tas
Table: TaskMaterial [Task2Task
Table: TaskMachineRole [Task2
Table: TaskMachine [Task2Task
Objects Report str... Layers Preview
Properties
Design
Name
Separator Ticks True [True]
Appearance
Default Frame
Layout
Appearance Condit... True [Show]
Distance Before 0 [0.0 mm]
Page Break Conditi... False [False]
Pagebreak Before False [No]
Line Options
Data Lines
Footer Lines
Appearance Condition
Appearance condition. The object will not be printed if this condition evaluates to False.
0 50 100 150 mm
Activities
WBS Start End Duration Name Cost
1.1 01.01.2006 01.01.2006 8,00 work-day TaskName 0,00 $
Page 1 of @LL.TotalPages0. printed on Tuesday, 22. March 2011 - 13:29
Layout Layout Preview Preview
List of variables
Variables
Project variables
Fields
LL
Subproject
Task
TaskEmployee
TaskEmployeeRole
TaskMachine
TaskMachineRole
TaskMaterial
TaskTeam
104.7, 268.1 Select
Report Container - 16.2mm, 10.8mm - 197.5mm, 277.2mm = 181.3mm, 266.4mm (Basis)

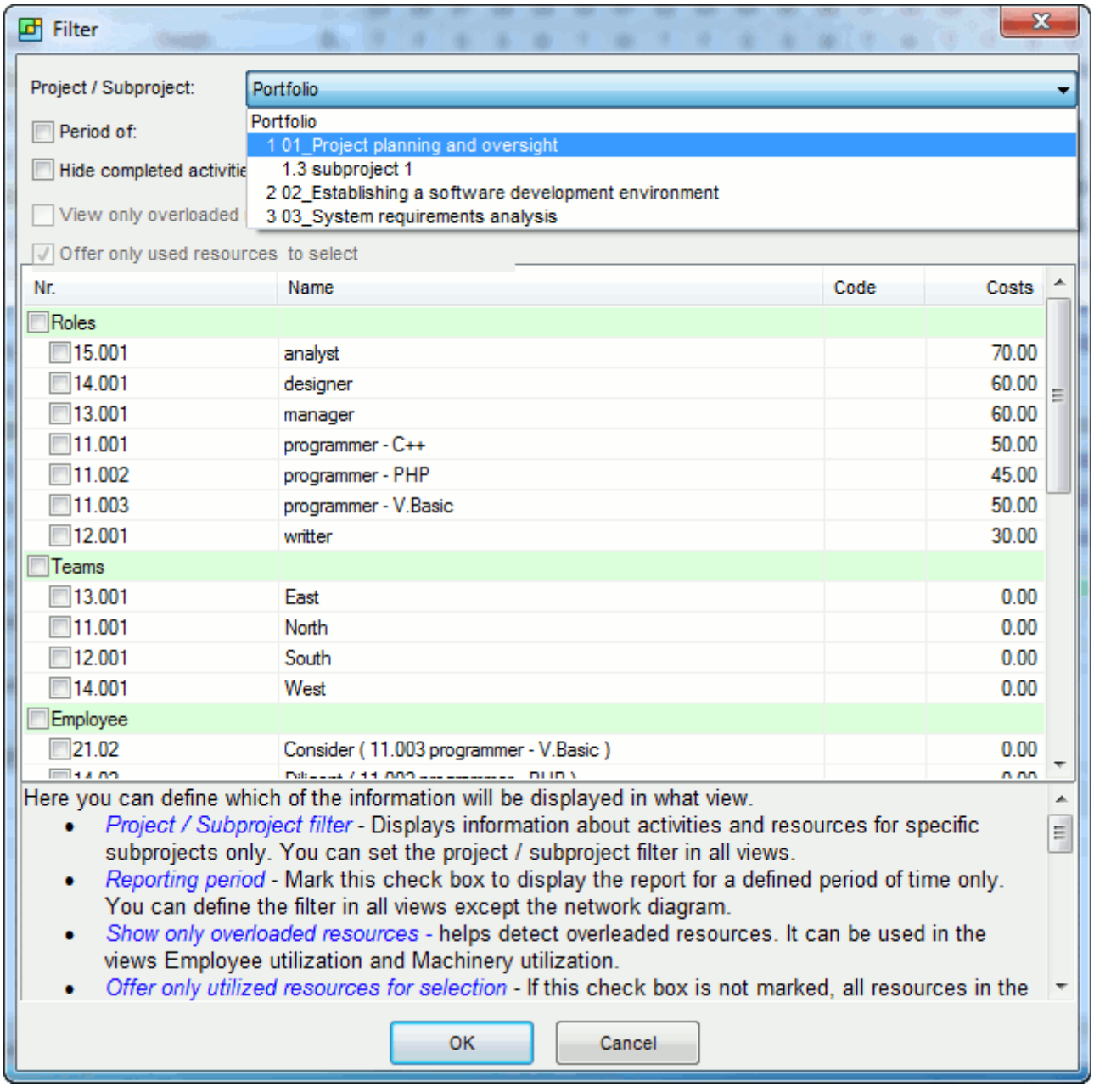
Reports available for project schedule

The following reports have been especially designed for the project schedule:

- General report
- General report without empty subprojects
- Activity list with percentage of completion
- Activity list with resources

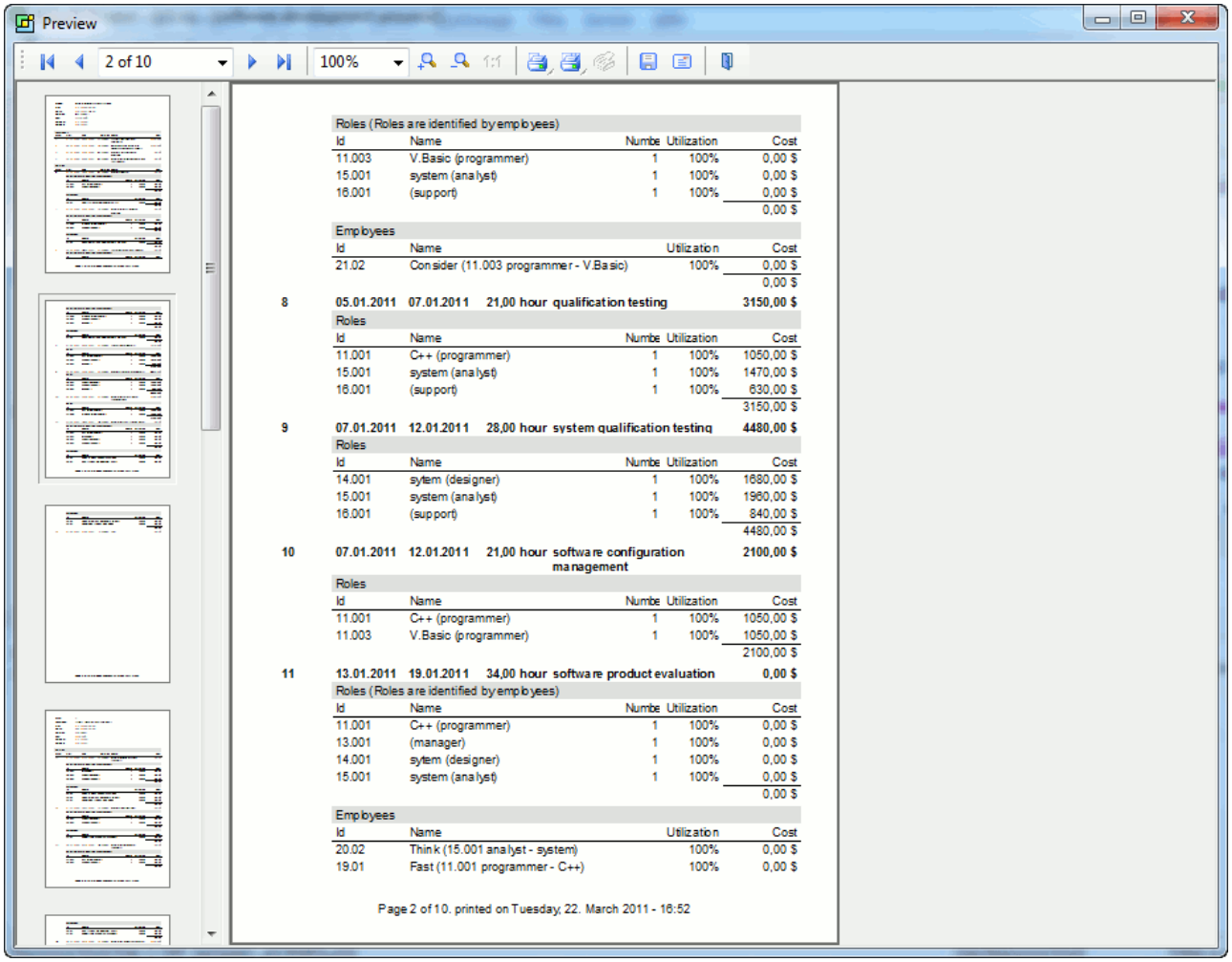
General report

1. Select the menu item **Tools / Reports / Project schedule**.
2. Select the option **General report**.
3. In the dialogue window **Filter** you can:



   - choose between main project and subprojects
   - define a report period

- add information about project resources

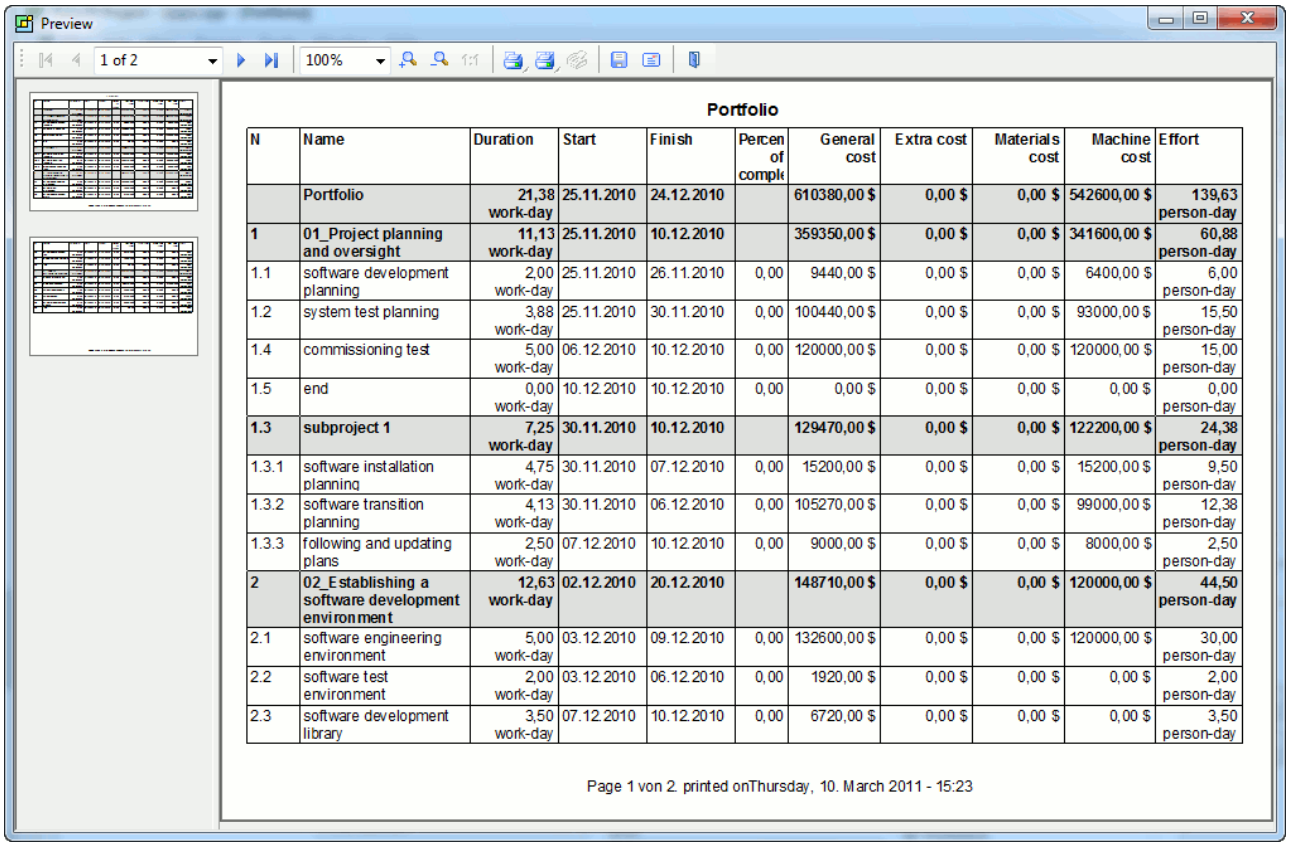


Note:

- The general report without empty subprojects looks similar to the general report. Any empty subproject that might exist in the project schedule will not be considered for the reporting.

Activity list with percentage of completion

1. Select the menu item **Tools / Reports / Project schedule**.
2. Select the option **Activity list with percentage of completion**.



Portfolio

N	Name	Duration	Start	Finish	Percen of comple	General cost	Extra cost	Materials cost	Machine cost	Effort
	Portfolio	**21,38 work-day**	**25.11.2010**	**24.12.2010**		**610380,00 $**	**0,00 $**	**0,00 $**	**542600,00 $**	**139,63 person-day**
1	**01_Project planning and oversight**	**11,13 work-day**	**25.11.2010**	**10.12.2010**		**359350,00 $**	**0,00 $**	**0,00 $**	**341600,00 $**	**60,88 person-day**
1.1	software development planning	2,00 work-day	25.11.2010	26.11.2010	0,00	9440,00 $	0,00 $	0,00 $	6400,00 $	6,00 person-day
1.2	system test planning	3,88 work-day	25.11.2010	30.11.2010	0,00	100440,00 $	0,00 $	0,00 $	93000,00 $	15,50 person-day
1.4	commissioning test	5,00 work-day	06.12.2010	10.12.2010	0,00	120000,00 $	0,00 $	0,00 $	120000,00 $	15,00 person-day
1.5	end	0,00 work-day	10.12.2010	10.12.2010	0,00	0,00 $	0,00 $	0,00 $	0,00 $	0,00 person-day
1.3	**subproject 1**	**7,25 work-day**	**30.11.2010**	**10.12.2010**		**129470,00 $**	**0,00 $**	**0,00 $**	**122200,00 $**	**24,38 person-day**
1.3.1	software installation planning	4,75 work-day	30.11.2010	07.12.2010	0,00	15200,00 $	0,00 $	0,00 $	15200,00 $	9,50 person-day
1.3.2	software transition planning	4,13 work-day	30.11.2010	06.12.2010	0,00	105270,00 $	0,00 $	0,00 $	99000,00 $	12,38 person-day
1.3.3	following and updating plans	2,50 work-day	07.12.2010	10.12.2010	0,00	9000,00 $	0,00 $	0,00 $	8000,00 $	2,50 person-day
2	**02_Establishing a software development environment**	**12,63 work-day**	**02.12.2010**	**20.12.2010**		**148710,00 $**	**0,00 $**	**0,00 $**	**120000,00 $**	**44,50 person-day**
2.1	software engineering environment	5,00 work-day	03.12.2010	09.12.2010	0,00	132600,00 $	0,00 $	0,00 $	120000,00 $	30,00 person-day
2.2	software test environment	2,00 work-day	03.12.2010	06.12.2010	0,00	1920,00 $	0,00 $	0,00 $	0,00 $	2,00 person-day
2.3	software development library	3,50 work-day	07.12.2010	10.12.2010	0,00	6720,00 $	0,00 $	0,00 $	0,00 $	3,50 person-day

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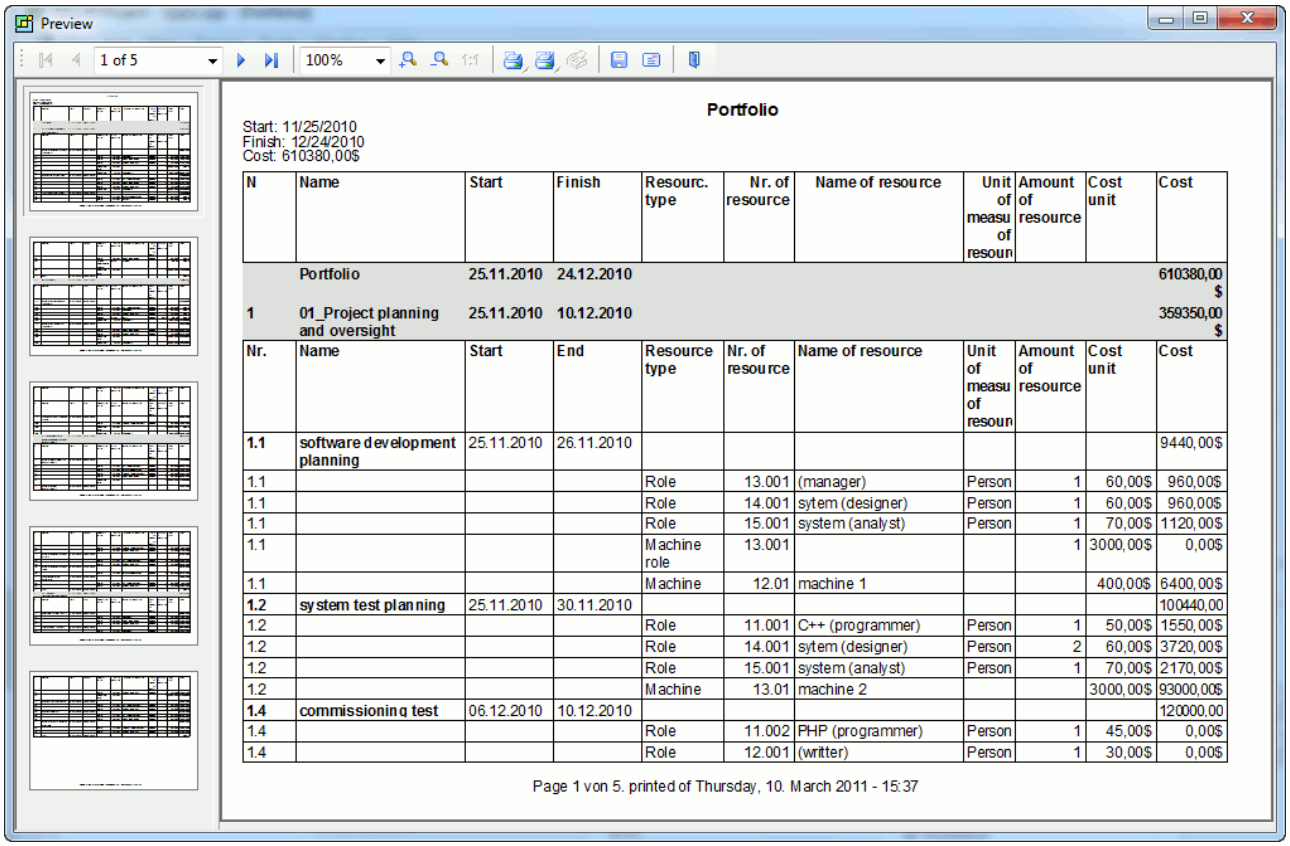
Activity list with resources

1. Select the menu item **Tools / Reports / Project schedule**.
2. Select the option **Activity list with resources**.



Portfolio

Start: 11/25/2010
Finish: 12/24/2010
Cost: 610380,00$

N	Name	Start	Finish	Resourc. type	Nr. of resource	Name of resource	Unit of measu of resoun	Amount of resource	Cost unit	Cost
	Portfolio	**25.11.2010**	**24.12.2010**							**610380,00 $**
1	**01_Project planning and oversight**	**25.11.2010**	**10.12.2010**							**359350,00 $**
Nr.	**Name**	**Start**	**End**	**Resource type**	**Nr. of resource**	**Name of resource**	**Unit of measu of resoun**	**Amount of resource**	**Cost unit**	**Cost**
1.1	**software development planning**	25.11.2010	26.11.2010							9440,00$
1.1				Role	13.001	(manager)	Person	1	60,00$	960,00$
1.1				Role	14.001	sytem (designer)	Person	1	60,00$	960,00$
1.1				Role	15.001	system (analyst)	Person	1	70,00$	1120,00$
1.1				Machine role	13.001			1	3000,00$	0,00$
1.1				Machine	12.01	machine 1			400,00$	6400,00$
1.2	**system test planning**	25.11.2010	30.11.2010							100440,00
1.2				Role	11.001	C++ (programmer)	Person	1	50,00$	1550,00$
1.2				Role	14.001	sytem (designer)	Person	2	60,00$	3720,00$
1.2				Role	15.001	system (analyst)	Person	1	70,00$	2170,00$
1.2				Machine	13.01	machine 2			3000,00$	93000,00$
1.4	**commissioning test**	06.12.2010	10.12.2010							120000,00
1.4				Role	11.002	PHP (programmer)	Person	1	45,00$	0,00$
1.4				Role	12.001	(writter)	Person	1	30,00$	0,00$

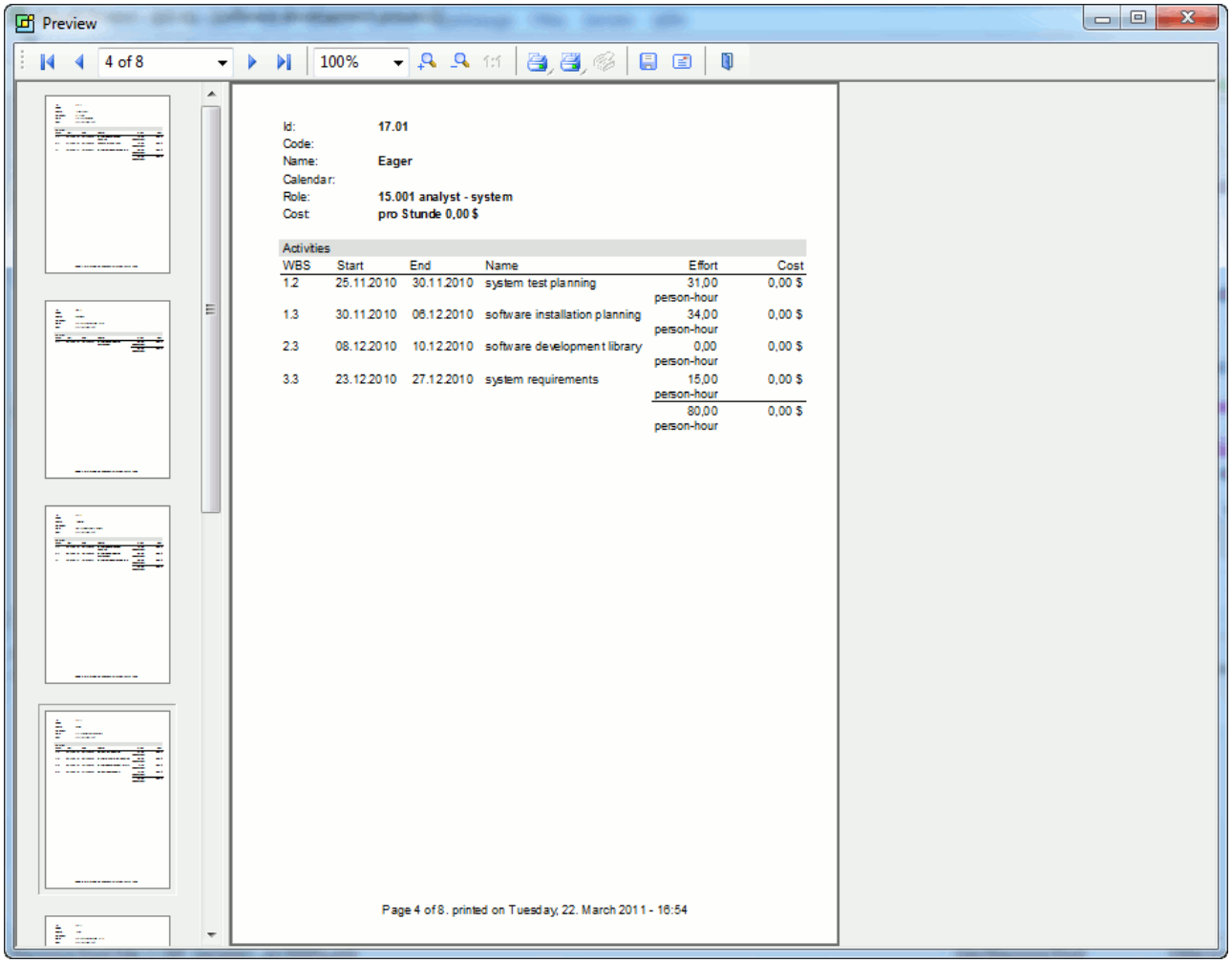
Page 1 von 5. printed of Thursday, 10. March 2011 - 15:37

Reports available for project resources

The following reports have been especially designed for project resources:

- Roles
- Teams
- Employees
- Material
- Machine types
- Machinery

Example of an Employee report



Reports available for resource pool

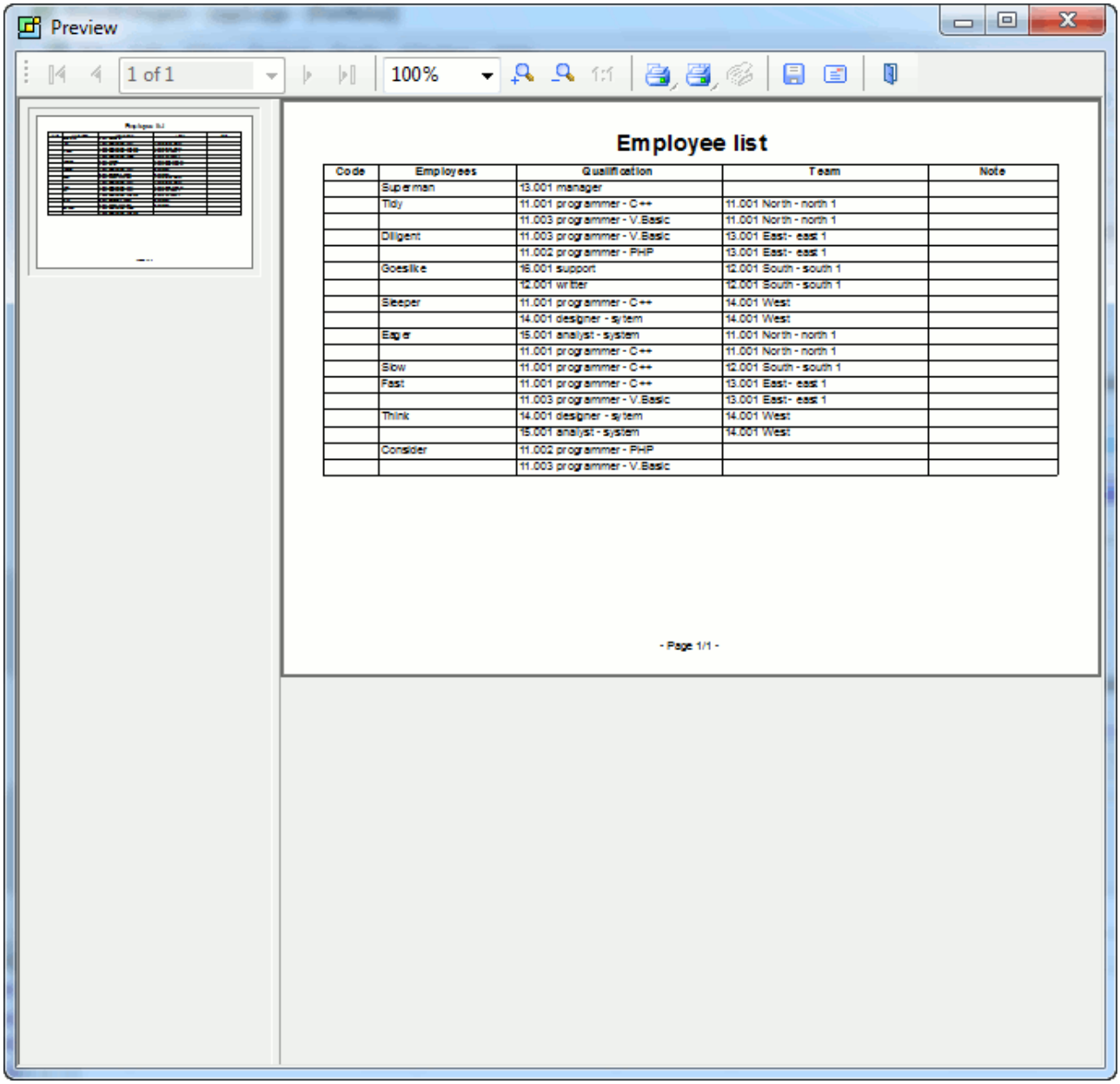
The following reports have been especially designed for the resource pool:

- Calendar
- Roles
- Teams
- Employees
    - Employee list
    - Month views
    - Year view in months
    - Annual report in calendar weeks
- Materials
- Maschine types
- Maschinery

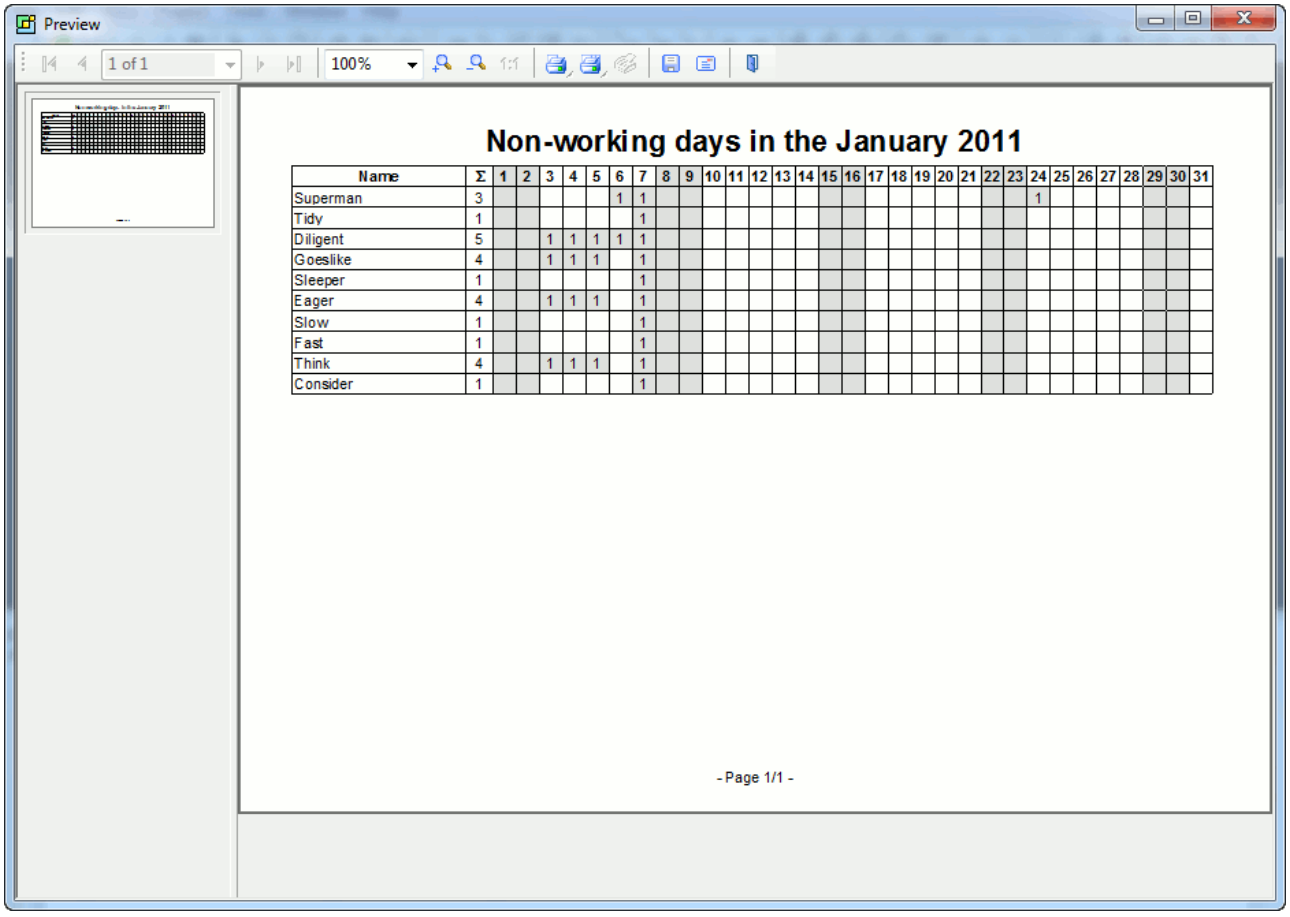
Important! A prerequisite for reports on non-working days is the input of non-working days in the resource pool to the **employees** in the **non-working days** column tab.

Examples of reports for employees and their non-working days

Employee list

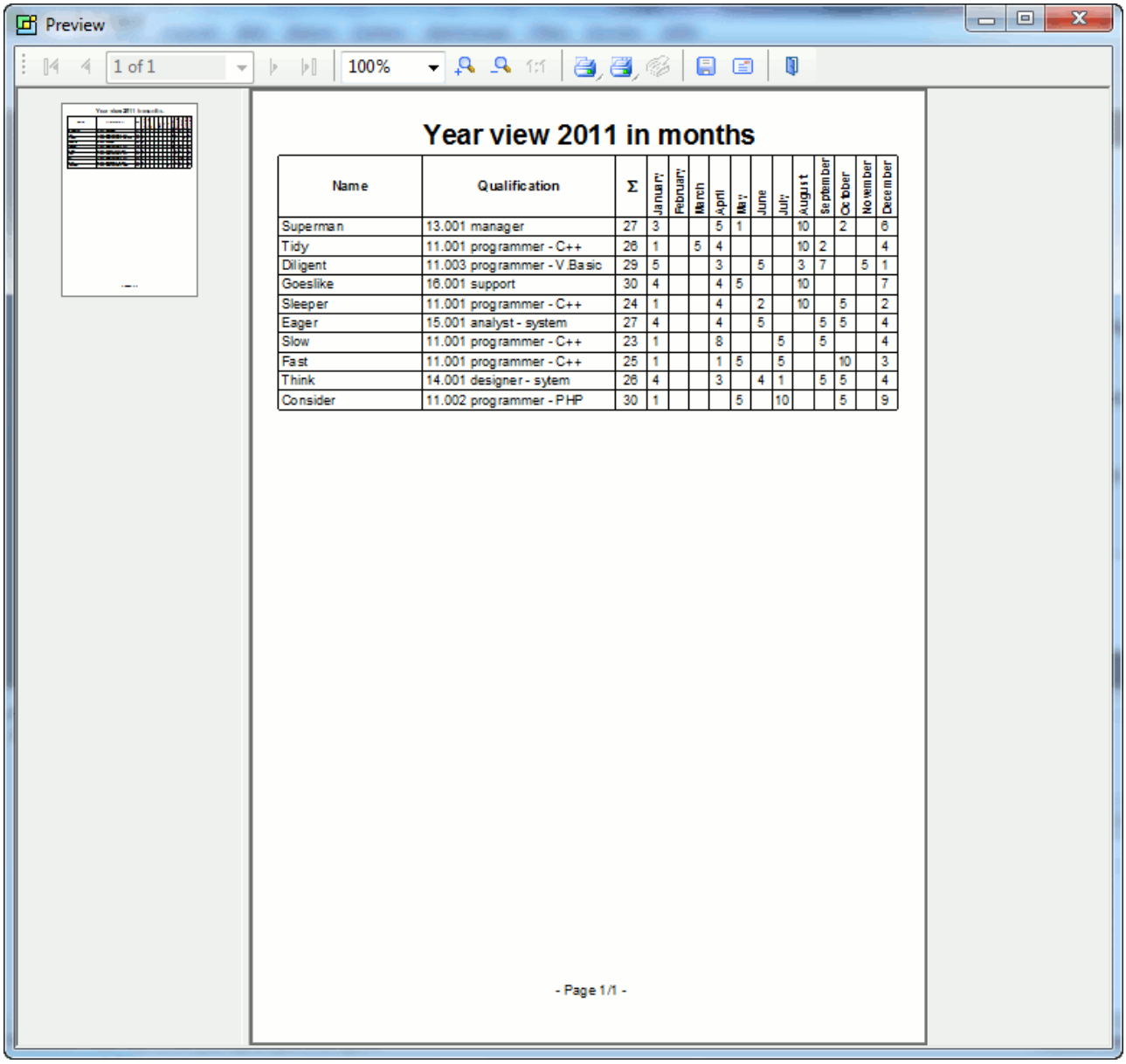


Month views

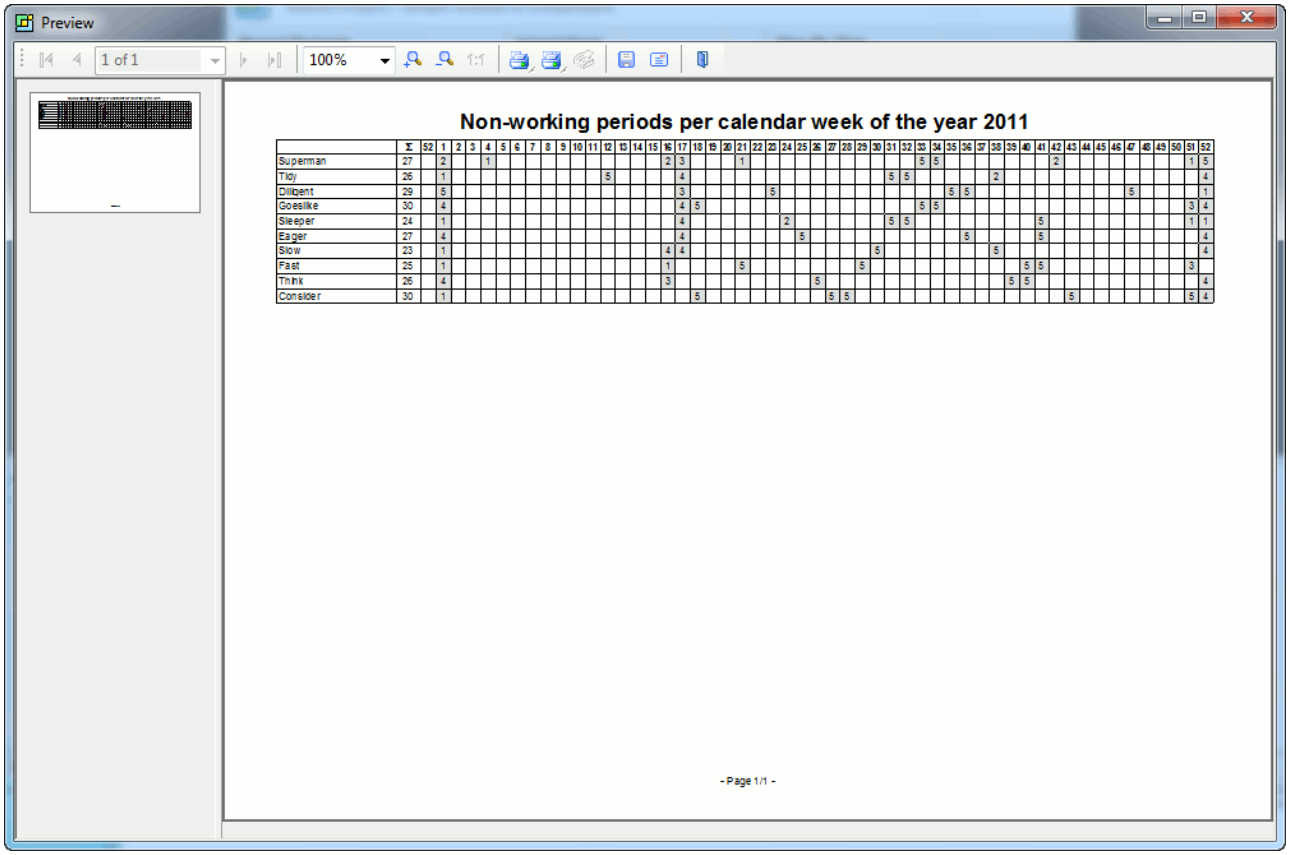


Name	Σ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Superman	3						1	1																	1							
Tidy	1							1																								
Diligent	5			1	1	1	1	1																								
Goeslike	4			1	1	1		1																								
Sleeper	1							1																								
Eager	4			1	1	1		1																								
Slow	1							1																								
Fast	1							1																								
Think	4			1	1	1		1																								
Consider	1							1																								

Year view in months



Annual report in calendar weeks



	Σ	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
Superman	27		2			1												2	3				1												5	5							2											1	5
Tidy	26		1											5					4													5	5						2																4
Diligent	29		5																3						5																														1
Goeslike	30		4																4	5															5	5																		3	4
Sleeper	24		1																4						2							5	5										5										1	1
Eager	27		4																4							5												5				5											4
Slow	23		1															4	4												5								5														4
Fast	25		1															1				5								5										5	5												3	
Think	26		4															3									5														5	5												4
Consider	30		1																	5								5	5																	5							5	4

Printing

You can print all views of a project and report about the project schedule and project resources.

- Select the view or report that fits best your requirements.
- Check the content in the preview field.
- Print the document.

Select either view or report

You can select a view by clicking to the appropriate tab in the lower part of the main window or by rightclicking the view tab and selecting the right view from the context menu.
You can select a report in the menu item **Tools / Reports**.

Print preview

In order to obtain a print preview, do as follows:

1. Choose the menu item **File / Page view** or
   Choose the icon button **Show print preview**  from the tool bar.
2. Check the appearing dialogue **Print preview** and correct the parameter if necessary.
3. Click on the button **OK**.

Printing

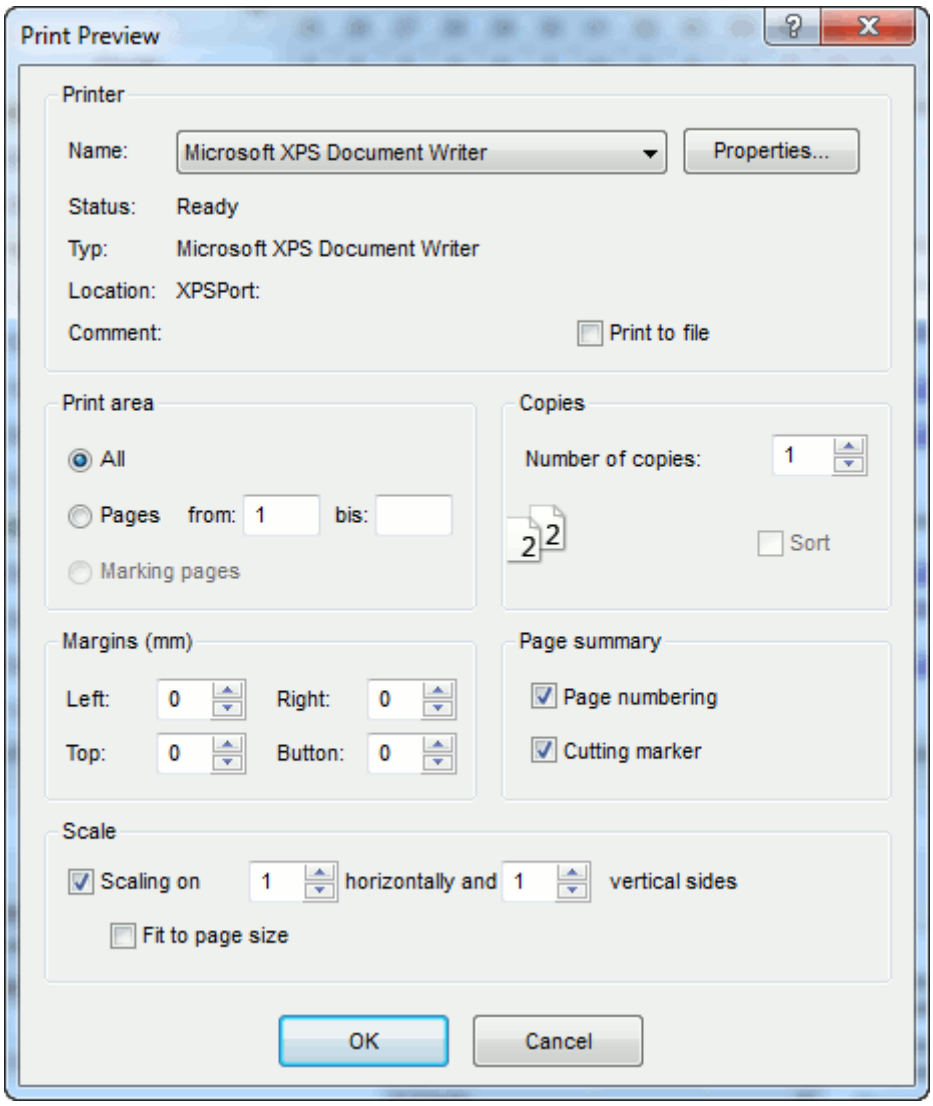
There is a number of ways for how to print a document:

- Select the menu item **File / Print...**.
- Choose the icon button **Print**  from the tool bar.
- After having checked the print preview, click on the button **Print**.

Print preview

You can print the project details as views or tables the way they are shown on your monitor. After the editing of the project details (filter, formatting, changing the view, etc.) in the preferred view, you can can check the layout, that is, the positions of the project details in the print preview. For this, you can use the page view function, which shows either a single page or several pages in a small scale of depiction. Project details can however not be edited in the page view modus.

You can use the menu item **File / Page view** to define the print settings.
Among others, you can fit a project schedule to one or several pages by entering the preferred number of pages in **Scale** and marking the check box **Fit to page size**.



Options in the dialogue window Print

Field Printer	It shows the currently active printing device and a few informations regarding the printer. You can use the list field Name to set another printing device as the currently active. The button Properties can be used to change the general Windows printing settings of the printer. After pressing the button, a printing prompt unhides where you can select the format and paper orientation. You can close the prompt window by pressing OK.

Field Fit to paper	Because of their size, most projects require more than one page for printing. You can use the two radio buttons to define whether the overall project (All) or or only some sequence of pages should be printed (radio button Activate pages and enter the numbers the "from" and "to" pages into the input field).
Field Number of copies	You can use this field to enter the number of the copies.
Field Margins	You can use this field to enter the size of the margins and whether you want to have the content of the pages printed within a particular frame.
Field Page summary	When the project prints on several pages, you can take advantage of the functions page numbering and cut marks to include all pages.
Field Scale	You can use this field to define whether a project schedule is printed vertically or horizontally on one or several pages with the selected format. The check box **Fit to page size** allows you to take the size of the page into account.

Print view

Rillsoft Project 5.3 offers the following views:

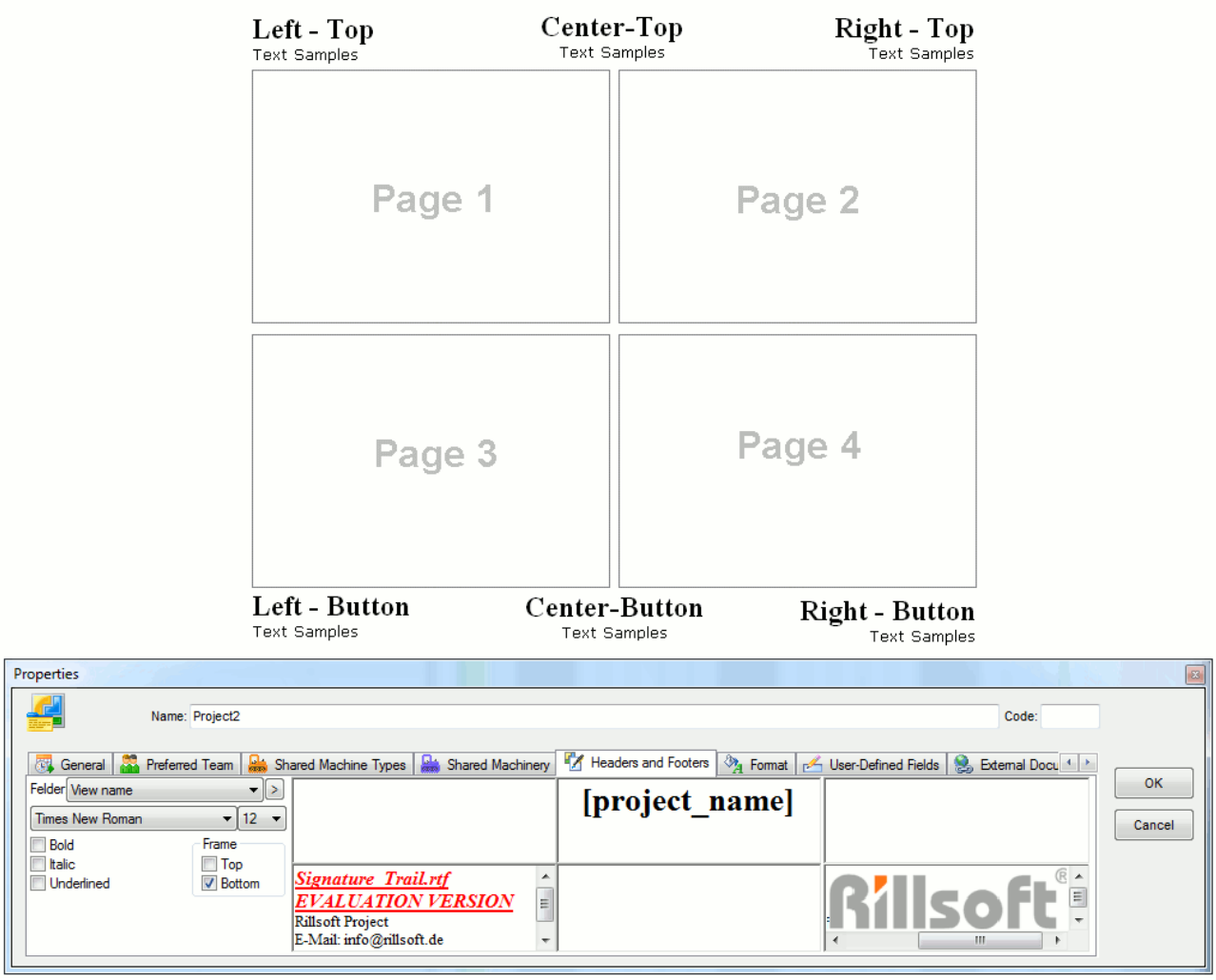
- Bar diagram
- Variance analysis
- Network diagram
- Bar-network diagram
- Resource diagram
- Role utilization
- Team utilization
- Employee utilization
- Capacity alignment personnel
- Material requirement
- Machine types
- Machinery
- Capacity alignment machines
- Break-even chart

In order to print a view, do as follows:

1. From the **Tab view**, select the view that contains the information you want to print.
2. Edit the header / footer for the printing of the project.
3. Select the menu item **File / Page view**.
4. After having checked the print preview, click on the button **Print**.

Header and footer

1. Select the menu item **Project / Project properties**.
2. In the window Project properties, select the tab **Header and footer**.
3. Click on one of the six text boxes to which you want to add the information and enter a text.
4. Alternatively, you can add texts and graphics, (such as **Logo-Picture**) from the clipboard.
5. You can also add project details from the drop down menu **Fields**.
6. Click on the button **OK**.



Edit the view you want to print

In the text field you can define the type and size of the font.
You may also remove entries from headers / footers by deleting the string of characters in the prompt field. Change text and display of bars
Quite often, the document looks differently on the screen than when in the print preview. You can do the following:

In order to **Enlarge the text in the activity or resources table**

- Select the menu item **Tools / Global settings / Font**.
- Click on the field table and select the font that fits you best.

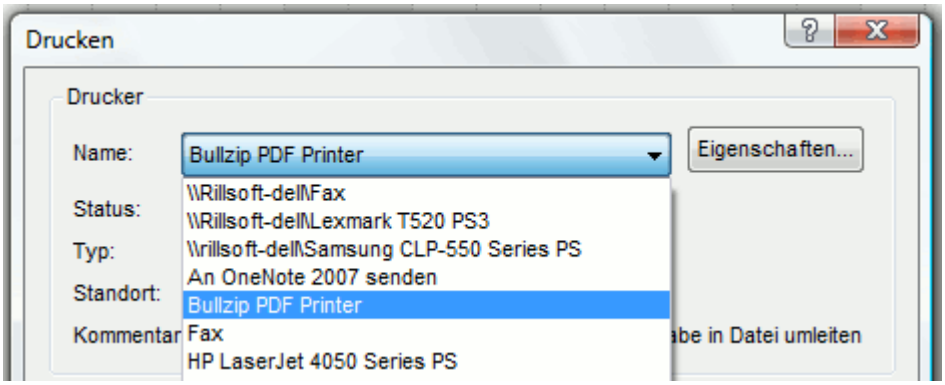
In order to **Vertically enlarge the bar diagram**

- Select the menu item **View / Zoom vertical +**

View as PDF file

In order to print as PDF file, you need to

- install a PDF printing device (such as Adobe Installer or a free program)
- Prepare a view for printing (see above)
- Select the menu item **File / Print**.
- Define an available PDF printing device in the dialogue **Print** above the list field **Name**.


Drucken
Drucker
Name:
Bullzip PDF Printer
Eigenschaften...
Status:
Typ:
Standort:
Kommentar
\\Rillsoft-dell\Fax
\\Rillsoft-dell\Lexmark T520 PS3
\\rillsoft-dell\Samsung CLP-550 Series PS
An OneNote 2007 senden
Bullzip PDF Printer
Fax
HP LaserJet 4050 Series PS
be in Datei umleiten

- Click OK.

Print report

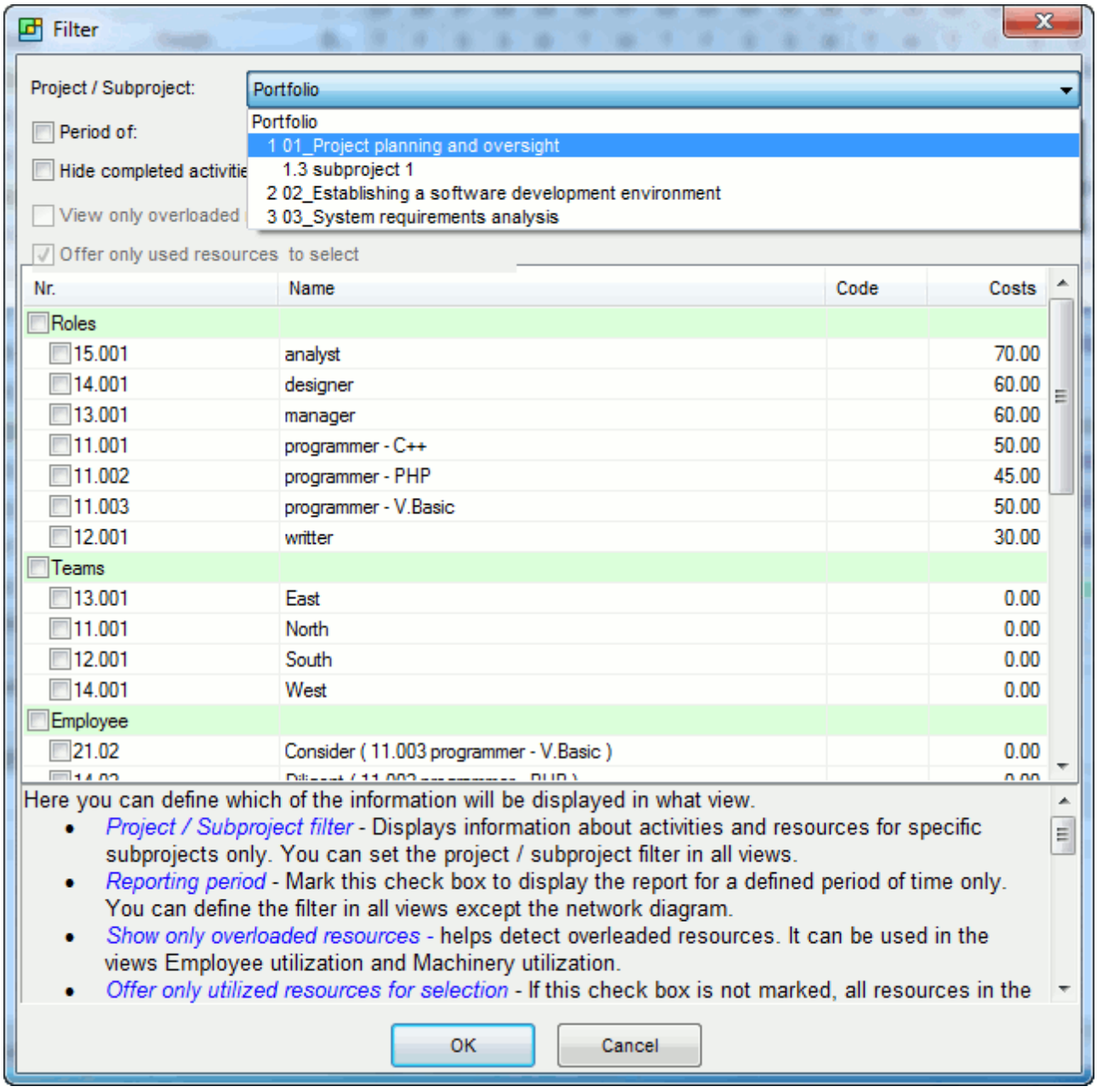
You can print reports of the

- Project schedule
- Project resources

.

Print project schedule

1. In the menu item **Tools / Reports / Project schedule** choose one of the options from the list of general reports and activities
2. In the dialogue window **Filter** you can



   - choose between main project and subprojects
   - define a report period

- add information about project resources

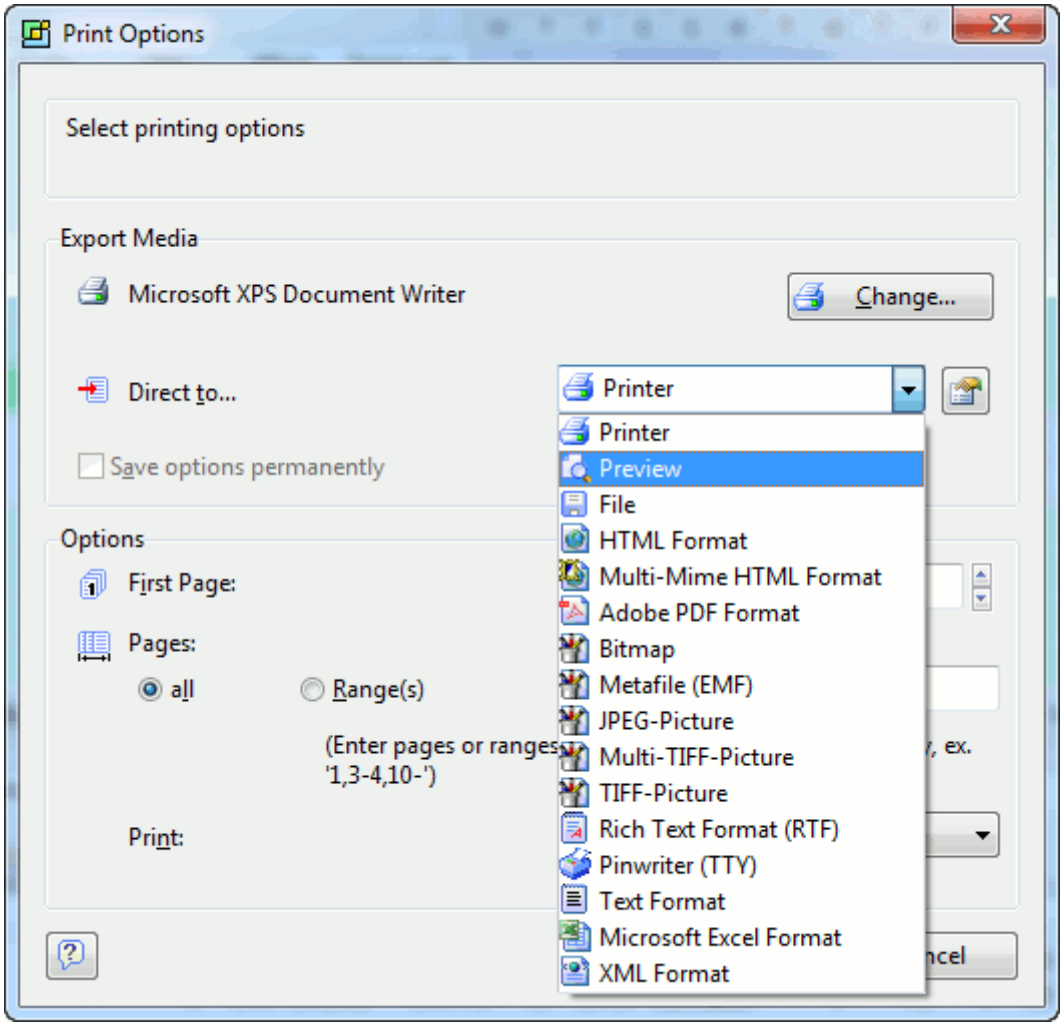
3. Click on the button **OK**.
4. Check the opening dialogue **Output settings** and correct the parameters if necessary.
5. Click on the button **Start**.

Print project resources

1. Select the menu item **Tools / Reports / Project resources**.
2. Choose the project resource.
3. In the dialogue window **Filter** you can
   - choose between main project and subprojects
   - define a report period
   - define information about selected project resources
4. Click on the button **OK**.
5. Check the opening dialogue **Output settings** and correct the parameters if necessary.
6. Click on the button **Start**.

Print preview

In the dialogue **Output settings**, choose from the drop down list **Output to...** the parameter **Preview**.
Click on the button **Start**.

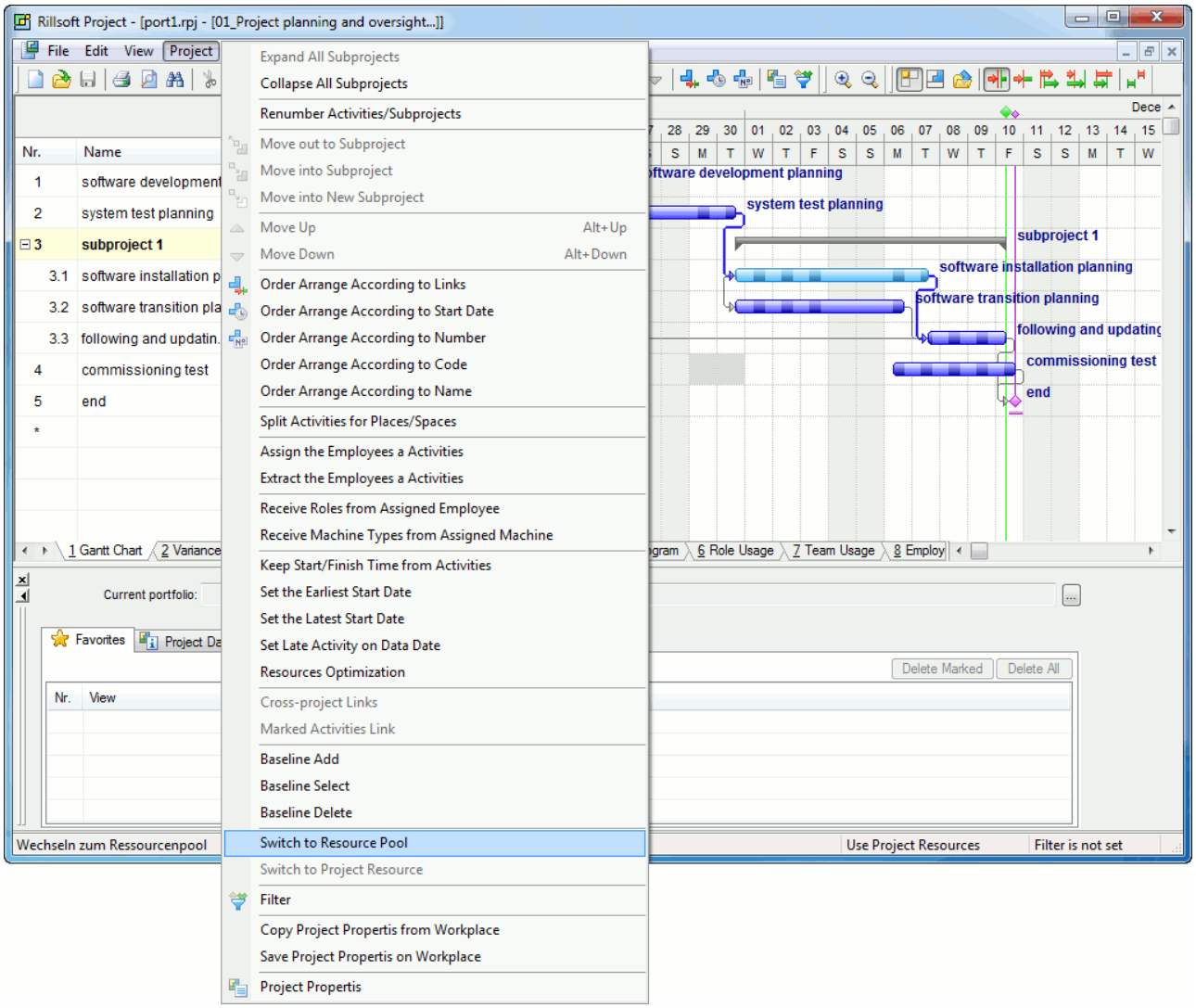


Appendix

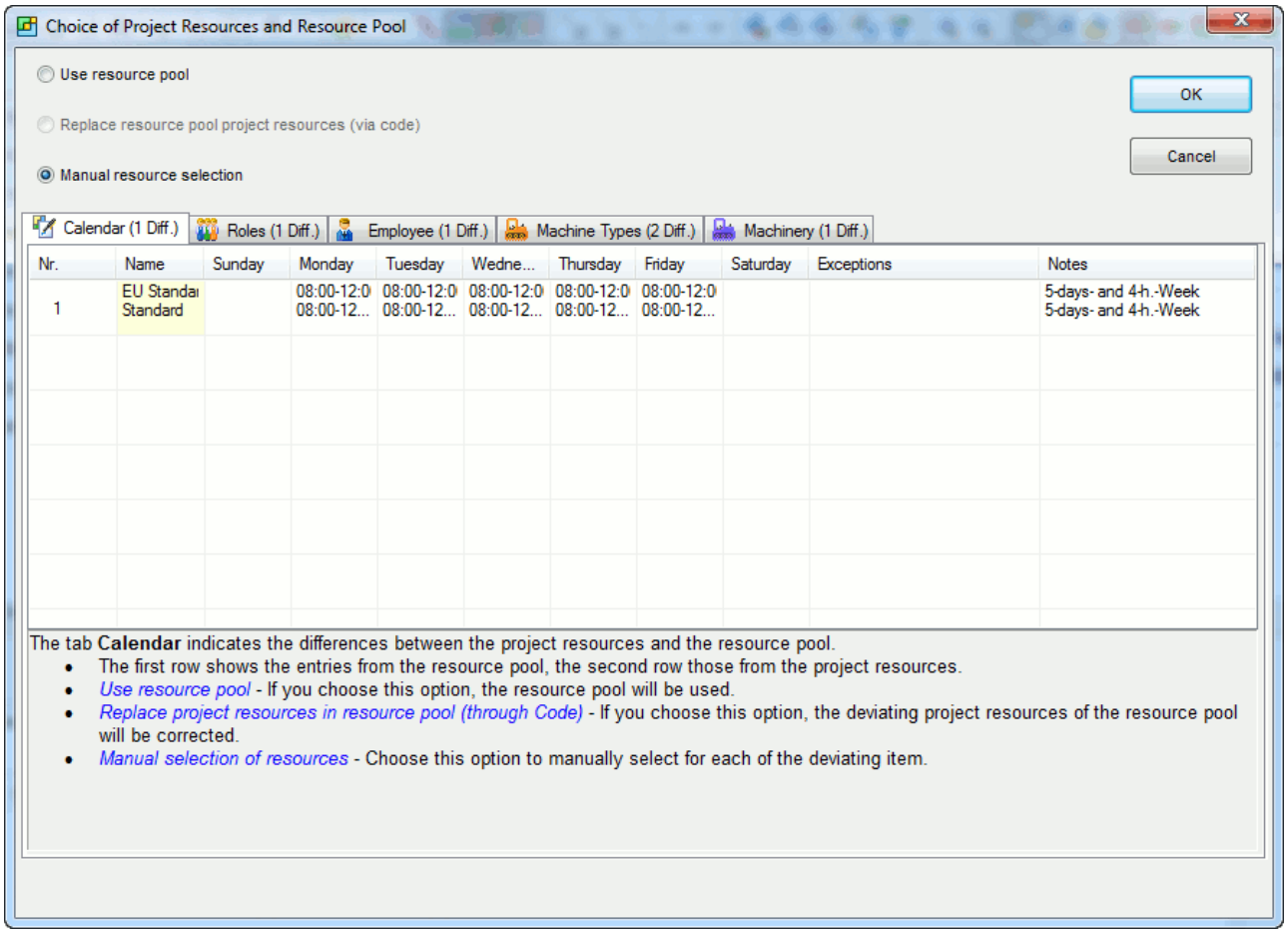
Appendix A: Shift to resource pool

It may be that the resources used in a project differ from those in the resource pool file, because project resources are stored along with the project. In this event, you can shift the project resources to the resource pool.

In order to align the resources, do as follows:
Select the menu item **Project / Shift to resource pool**



The dialogue **Choose between project resources and resource pool** will open if the there exist differences in resources. The first row shows the entries from the resource pool, the second row the project resources.



1. Take a minute to decide which of the following options you want to use for your work.
   a. Choose the option **Use resource pool** to use the resource pool.
   b. Choose the option **Replace project resources with resource pool (per code)** to replace the differing project resources data with those of the resource pool.
   c. Choose the option **Manual selection of resources** to select manually for each of the deviating item.
2. Click on the button **OK**.

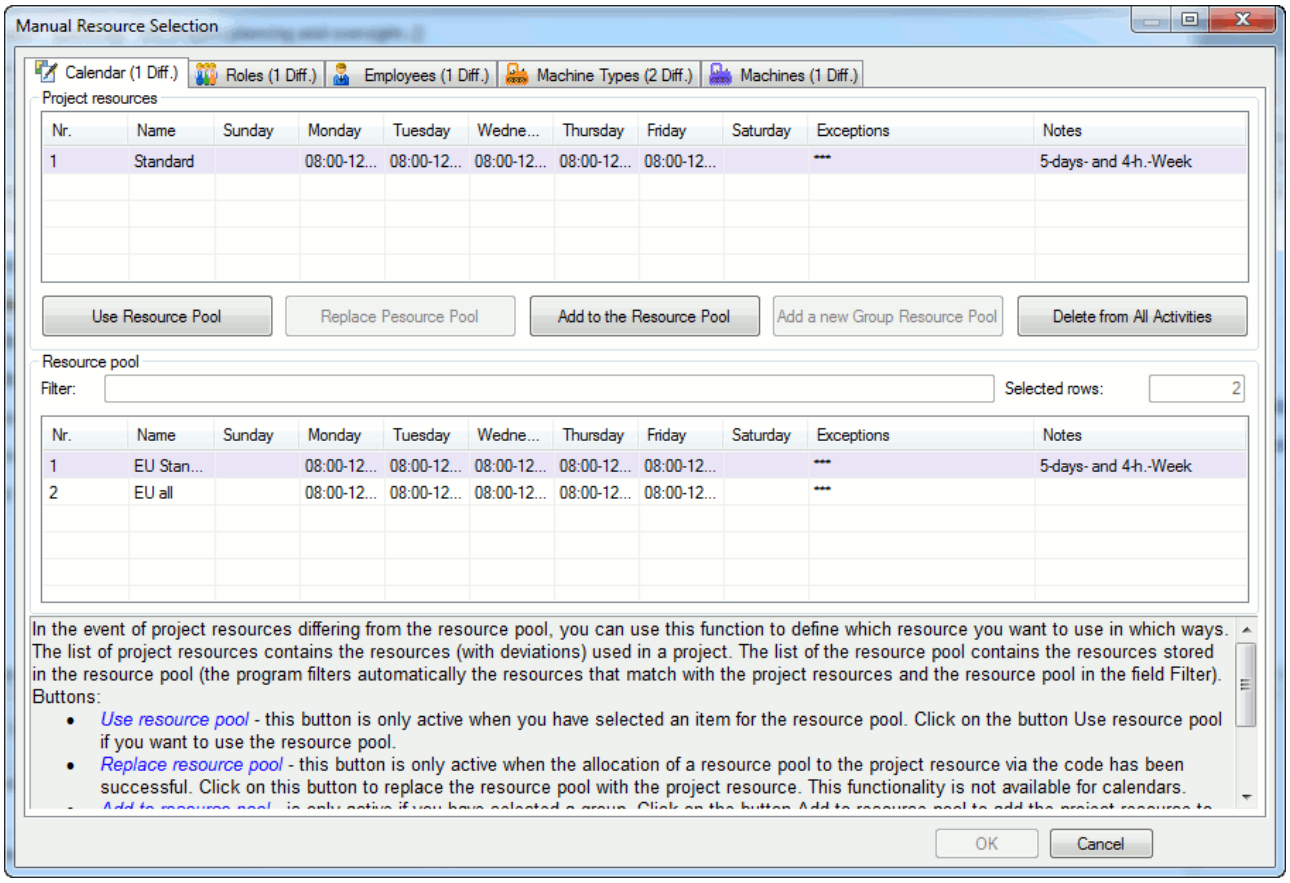
Note:

- In selecting resources manually, the dialogue **Manual selection of resources** opens in the next instant. For each of the resource items, you need to manually enter what you want to do with the differing resources.

Manual selection of calendar

In the event of differing calendars in project resources and resource pool, you can use this function to define which calendars you want to use in which ways.

The list of project resources contains the calendars (with deviations) used in a project. In the list of resource pools, the calendar defined in the resource pool.



In order to align the project calendar with the resource pool, you do as follows:

1. In the table **Project resources** mark the calendar you want to align.
2. Click on one of the following buttons:
    a. Click on the button **Use resource pool** if you want to use the resource pool calendar.

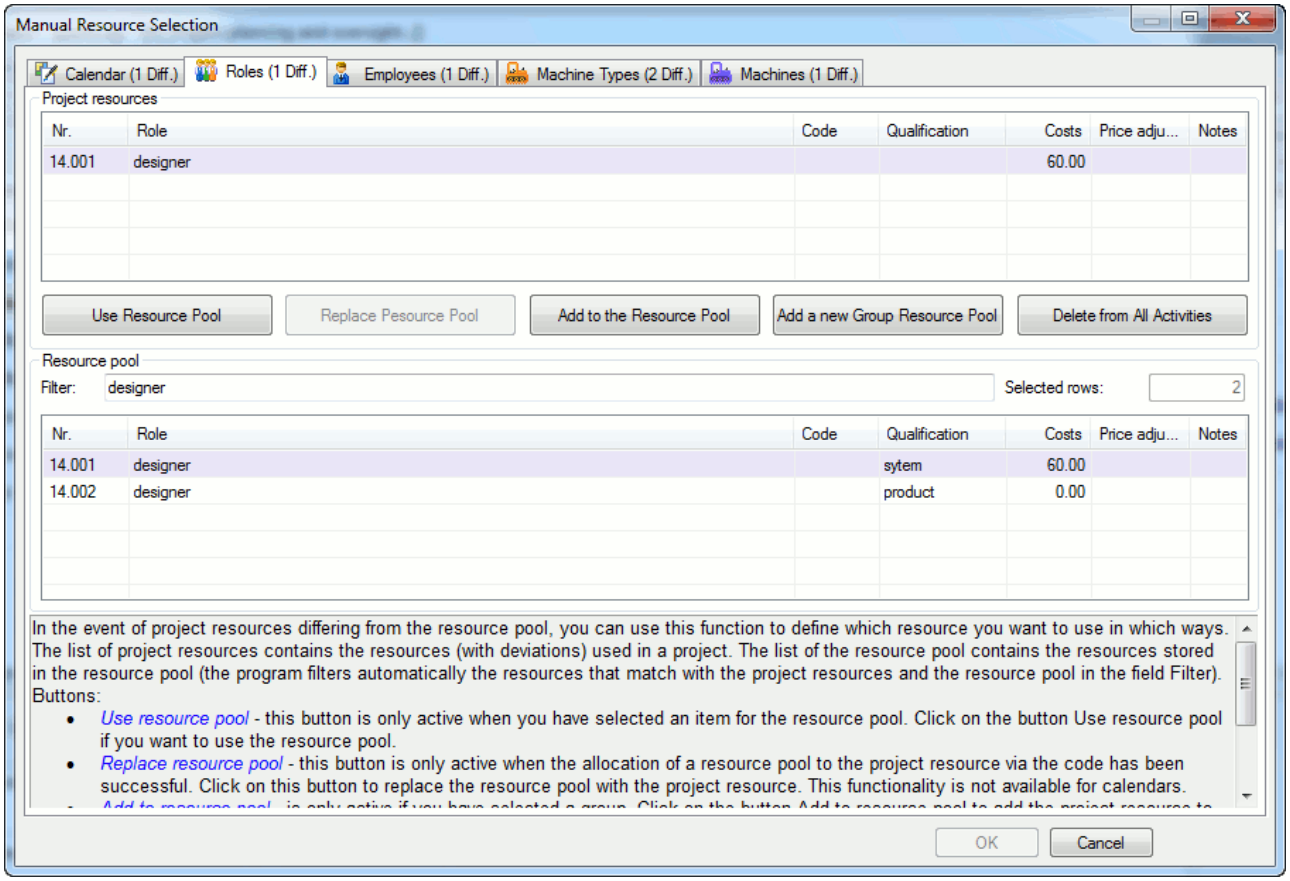
       Note: this button is only active when you have selected an item for the resource pool.

    b. Click on the button **Add to resource pool** to add the project calendar to the resource pool.
    c. Click on the button **Delete from all project activities** to delete the project calendar.
3. If necessary, switch to another tab to align the resources.
4. Click on the button **OK**.

Manual selection of roles

In the event of project resources differing from the resource pool, you can use this function to define which resource you want to use in which ways.

The list of project resources contains the resources (with deviations) used in a project. The list of the resource pool contains the resources stored in the resource pool (the program filters automatically the resources that match with the project resources and the resource pool in the field **Filter**).



In order to manually align the project roles with the roles contained in the resource pool file, you do as follows:

1. In the table **Project resources** mark the role you want to align.
2. Click on one of the following buttons:
    a. Click on the button **Use resource pool** if you want to use the resource pool roles.

       Note: this button is only active when you have selected an item for the resource pool.

    b. Click on the button **Replace resource pool** to replace the resource pool role with the project resource role.

       Note: this button is only active when the allocation of a resource pool to the project resource via the code has been successful.

    c. Click on the button **Add to resource pool** to add the project resource to the resource pool (the group properties are entered into the existing group, however not the group name of the project resource).

Note: this button is only active when you have selected a group in the table Resource pool.

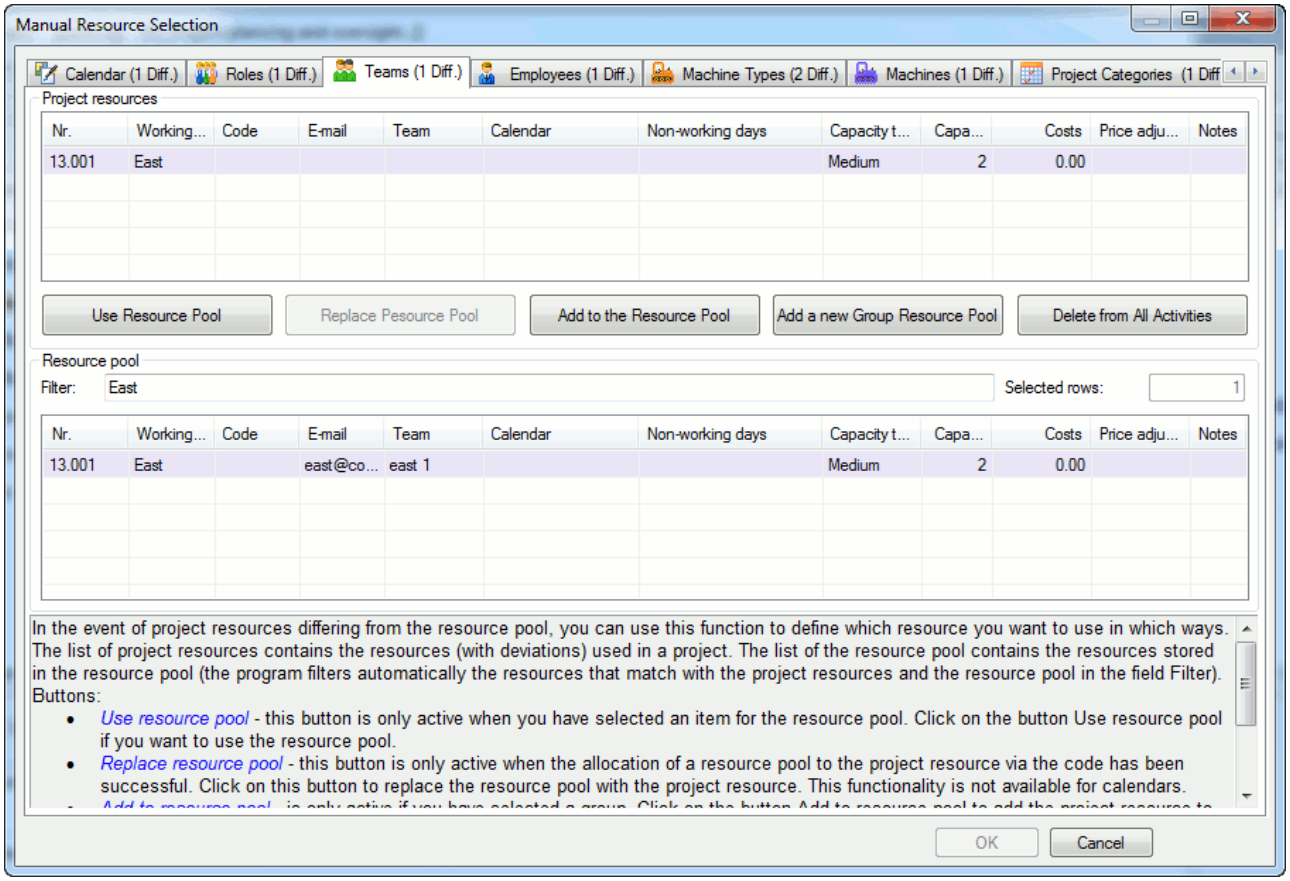
d. Click on the button **Add to a new group in the resource pool** to add the project resource and the group name to the new group in the resource pool.
e. Click on the button **Delete from all project activities** to delete the project resource.

3. If necessary, switch to another tab to align the resources.
4. Click on the button **OK**.

Manual selection of teams

In the event of project resources differing from the resource pool, you can use this function to define which resource you want to use in which ways.

The list of project resources contains the resources (with deviations) used in a project. The list of the resource pool contains the resources stored in the resource pool (the program filters automatically the resources that match with the project resources and the resource pool in the field **Filter**).



In order to manually align the project teams with the teams contained in the resource pool file, you do as follows:

1. In the table **Project resources** mark the team you want to align.
2. Click on one of the following buttons:
    a. Click on the button **Use resource pool** if you want to use the resource pool team.

       Note: this button is only active when you have selected an item for the resource pool.

    b. Click on the button **Replace resource pool** to replace the resource pool team with the project resource team.

       Note: this button is only active when the allocation of a resource pool to the project resource via the code has been successful.

    c. Click on the button **Add to resource pool** to add the project resource to the resource pool (the group properties are entered into the existing group, however not the group name of the project resource).

Note: this button is only active when you have selected a group in the table Resource pool.

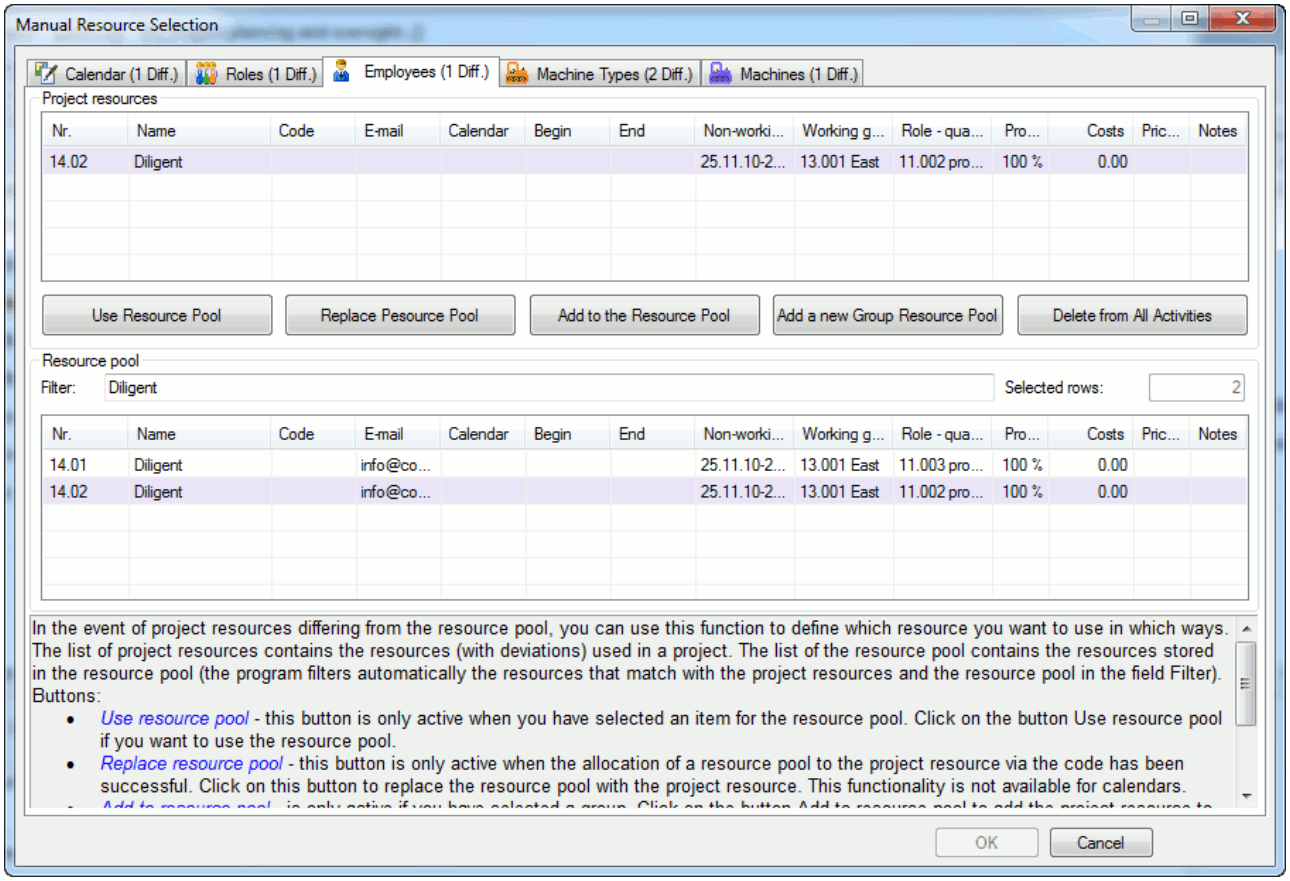
d. Click on the button **Add to a new group in the resource pool** to add the project resource and the group name to the new group in the resource pool.
e. Click on the button **Delete from all project activities** to delete the project resource.

3. If necessary, switch to another tab to align the resources.
4. Click on the button **OK**.

Manual selection of employees

In the event of project resources differing from the resource pool, you can use this function to define which resource you want to use in which ways.

The list of project resources contains the resources (with deviations) used in a project. The list of the resource pool contains the resources stored in the resource pool (the program filters automatically the resources that match with the project resources and the resource pool in the field **Filter**).



In order to manually align the project employees with the employees contained in the resource pool file, you do as follows:

1. In the table **Project resources** mark the employee you want to align.
2. Click on one of the following buttons:
    a. Click on the button **Use resource pool** if you want to use the resource pool employee.

       Note: this button is only active when you have selected an item for the resource pool.

    b. Click on the button **Replace resource pool** to replace the resource pool employee with the project resource employee.

       Note: this button is only active when the allocation of a resource pool to the project resource via the code has been successful.

    c. Click on the button **Add to resource pool** to add the project resource to the resource pool (the group properties are entered into the existing group, however not the group name of the project resource).

Note: this button is only active when you have selected a group in the table Resource pool.

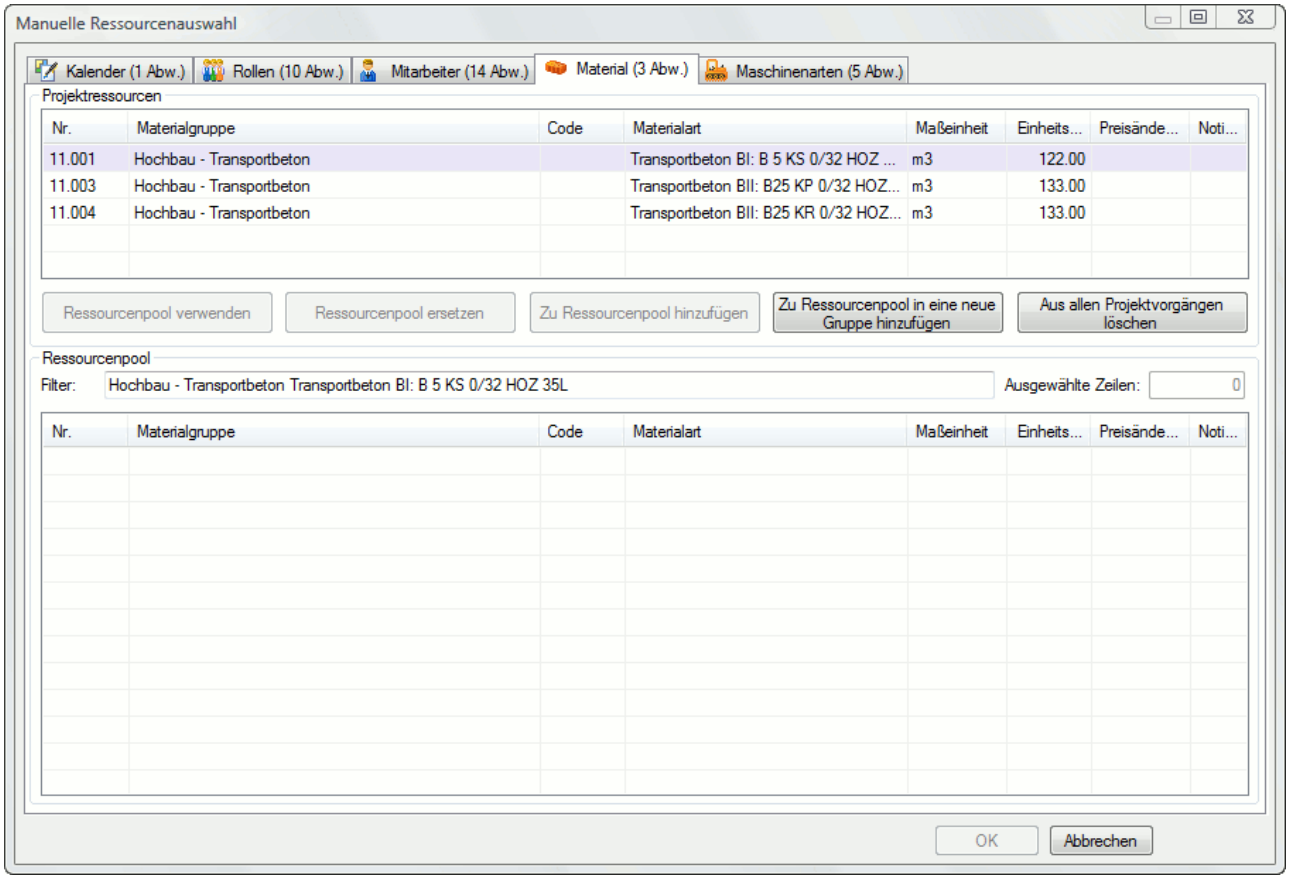
d. Click on the button **Add to a new group in the resource pool** to add the project resource and the group name to the new group in the resource pool.
e. Click on the button **Delete from all project activities** to delete the project resource.

3. If necessary, switch to another tab to align the resources.
4. Click on the button **OK**.

Manual selection of materials

In the event of project resources differing from the resource pool, you can use this function to define which resource you want to use in which ways.

The list of project resources contains the resources (with deviations) used in a project. The list of the resource pool contains the resources stored in the resource pool (the program filters automatically the resources that match with the project resources and the resource pool in the field **Filter**).



In order to manually align the project employees with the materials contained in the resource pool file, you do as follows:

1. In the table **Project resources** mark the material you want to align.
2. Click on one of the following buttons:
    a. Click on the button **Use resource pool** if you want to use the resource pool material.

       Note: this button is only active when you have selected an item for the resource pool.

    b. Click on the button **Replace resource pool** to replace the resource pool material with the project resource material.

       Note: this button is only active when the allocation of a resource pool to the project resource via the code has been successful.

    c. Click on the button **Add to resource pool** to add the project resource to the resource pool (the group properties are entered into the existing group, however not the group name of the project resource).

Note: this button is only active when you have selected a group in the table Resource pool.

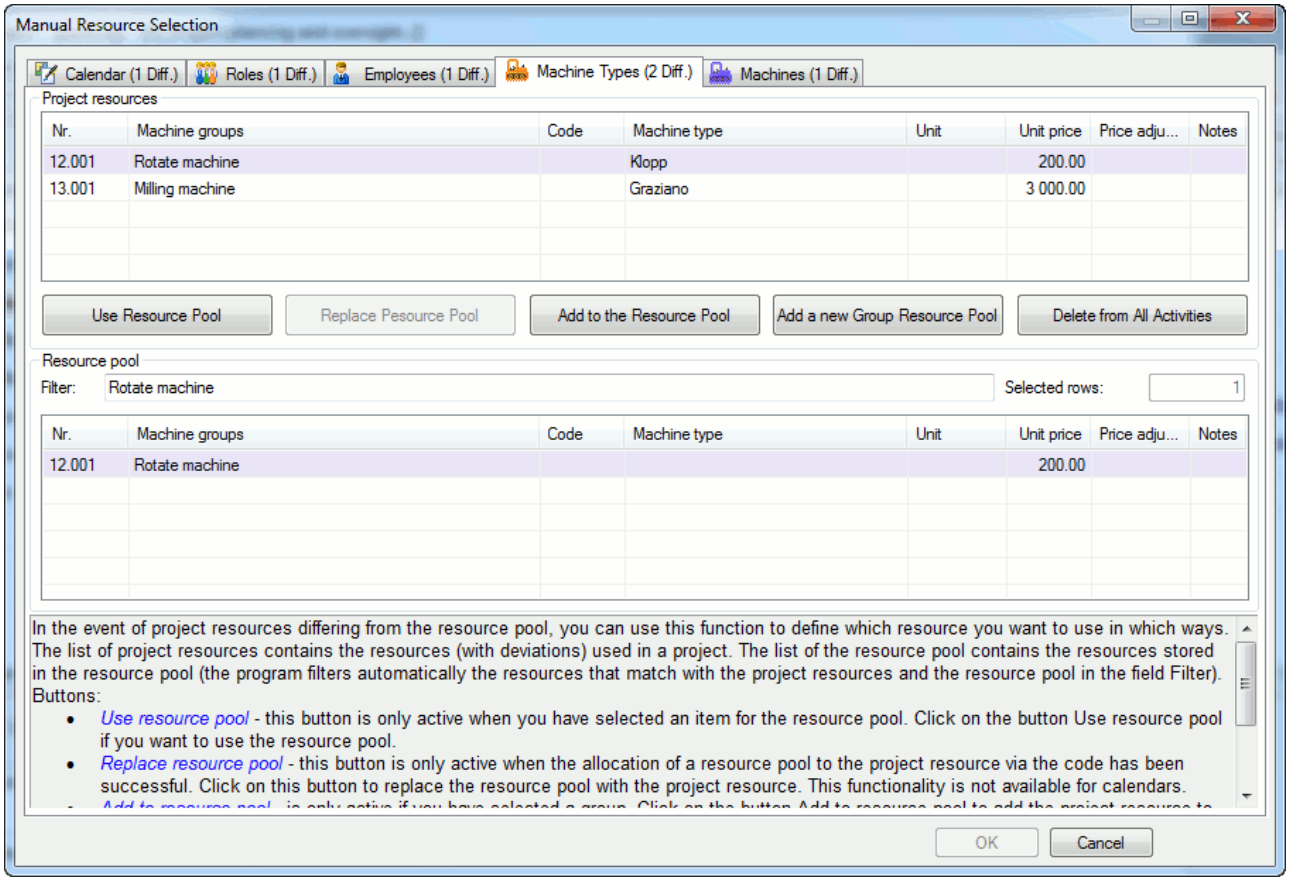
d. Click on the button **Add to a new group in the resource pool** to add the project resource and the group name to the new group in the resource pool.
e. Click on the button **Delete from all project activities** to delete the project resource.

3. If necessary, switch to another tab to align the resources.
4. Click on the button **OK**.

Manual selection of machine types

In the event of project resources differing from the resource pool, you can use this function to define which resource you want to use in which ways.

The list of project resources contains the resources (with deviations) used in a project. The list of the resource pool contains the resources stored in the resource pool (the program filters automatically the resources that match with the project resources and the resource pool in the field **Filter**).



In order to manually align the project employees with the machines contained in the resource pool file, you do as follows:

1. In the table **Project resources** mark the machine type you want to align.
2. Click on one of the following buttons:
    a. Click on the button **Use resource pool** if you want to use the resource pool machine types.

       Note: this button is only active when you have selected an item for the resource pool.

    b. Click on the button **Replace resource pool** to replace the resource pool machine type with the project resource machine type.

       Note: this button is only active when the allocation of a resource pool to the project resource via the code has been successful.

    c. Click on the button **Add to resource pool** to add the project resource to the resource pool (the group properties are entered into the existing group, however not the group name of the project resource).

Note: this button is only active when you have selected a group in the table Resource pool.

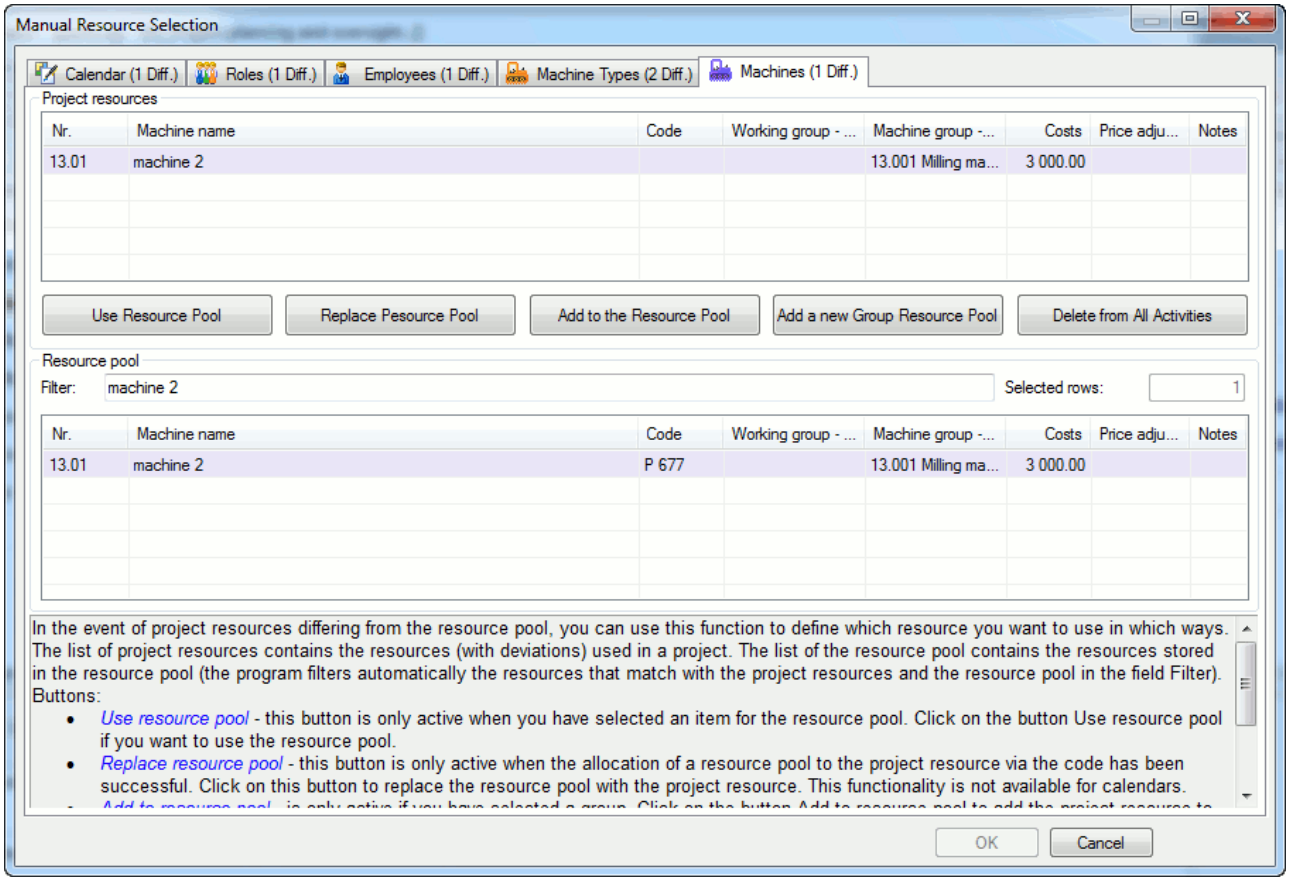
d. Click on the button **Add to a new group in the resource pool** to add the project resource and the group name to the new group in the resource pool.
e. Click on the button **Delete from all project activities** to delete the project resource.

3. If necessary, switch to another tab to align the resources.
4. Click on the button **OK**.

Manual selection of machinery

In the event of project resources differing from the resource pool, you can use this function to define which resource you want to use in which ways.

The list of project resources contains the resources (with deviations) used in a project. The list of the resource pool contains the resources stored in the resource pool (the program filters automatically the resources that match with the project resources and the resource pool in the field **Filter**).



In order to manually align the project machines with the machines contained in the resource pool file, you do as follows:

1. In the table **Project resources** mark the machines you want to align.
2. Click on one of the following buttons:
    a. Click on the button **Use resource pool** if you want to use the resource pool machine.

       Note: this button is only active when you have selected an item for the resource pool.

    b. Click on the button **Replace resource pool** to replace the resource pool machine with the project resource machine.

       Note: this button is only active when the allocation of a resource pool to the project resource via the code has been successful.

    c. Click on the button **Add to resource pool** to add the project resource to the resource pool (the group properties are entered into the existing group, however not the group name of the project resource).

Note: this button is only active when you have selected a group in the table Resource pool.

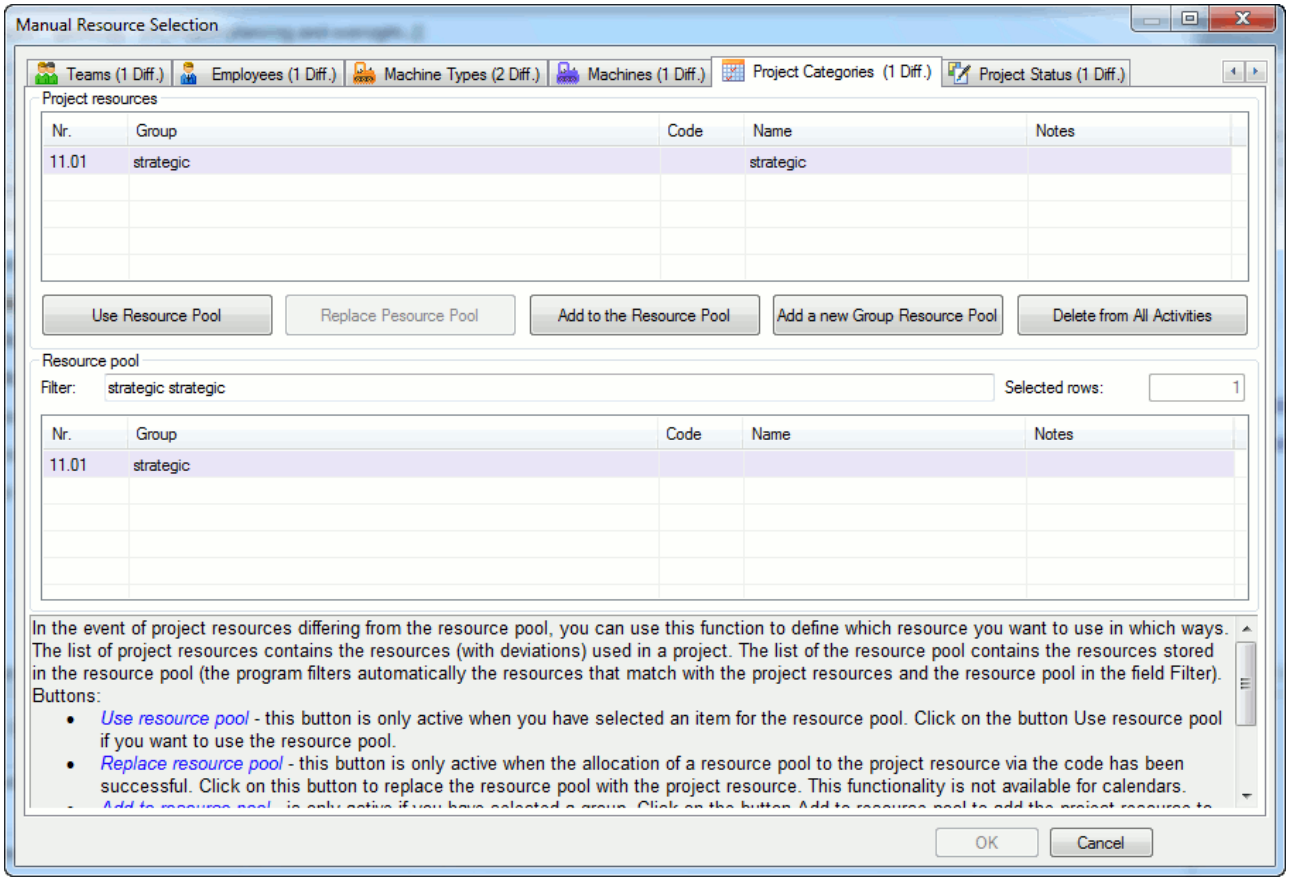
d. Click on the button **Add to a new group in the resource pool** to add the project resource and the group name to the new group in the resource pool.
e. Click on the button **Delete from all project activities** to delete the project resource.

3. If necessary, switch to another tab to align the resources.
4. Click on the button **OK**.

Manual selection of project category

In the event of project resources differing from the resource pool, you can use this function to define which resource you want to use in which ways.

The list of project resources contains the resources (with deviations) used in a project. The list of the resource pool contains the resources stored in the resource pool (the program filters automatically the resources that match with the project resources and the resource pool in the field **Filter**).



In order to manually align the project roles with the roles contained in the resource pool file, you do as follows:

1. In the table **Project resources** mark the role you want to align.
2. Click on one of the following buttons:
    a. Click on the button **Use resource pool** if you want to use the resource pool roles.

       Note: this button is only active when you have selected an item for the resource pool.

    b. Click on the button **Replace resource pool** to replace the resource pool role with the project resource role.

       Note: this button is only active when the allocation of a resource pool to the project resource via the code has been successful.

    c. Click on the button **Add to resource pool** to add the project resource to the resource pool (the group properties are entered into the existing group, however not the group name of the project resource).

Note: this button is only active when you have selected a group in the table Resource pool.

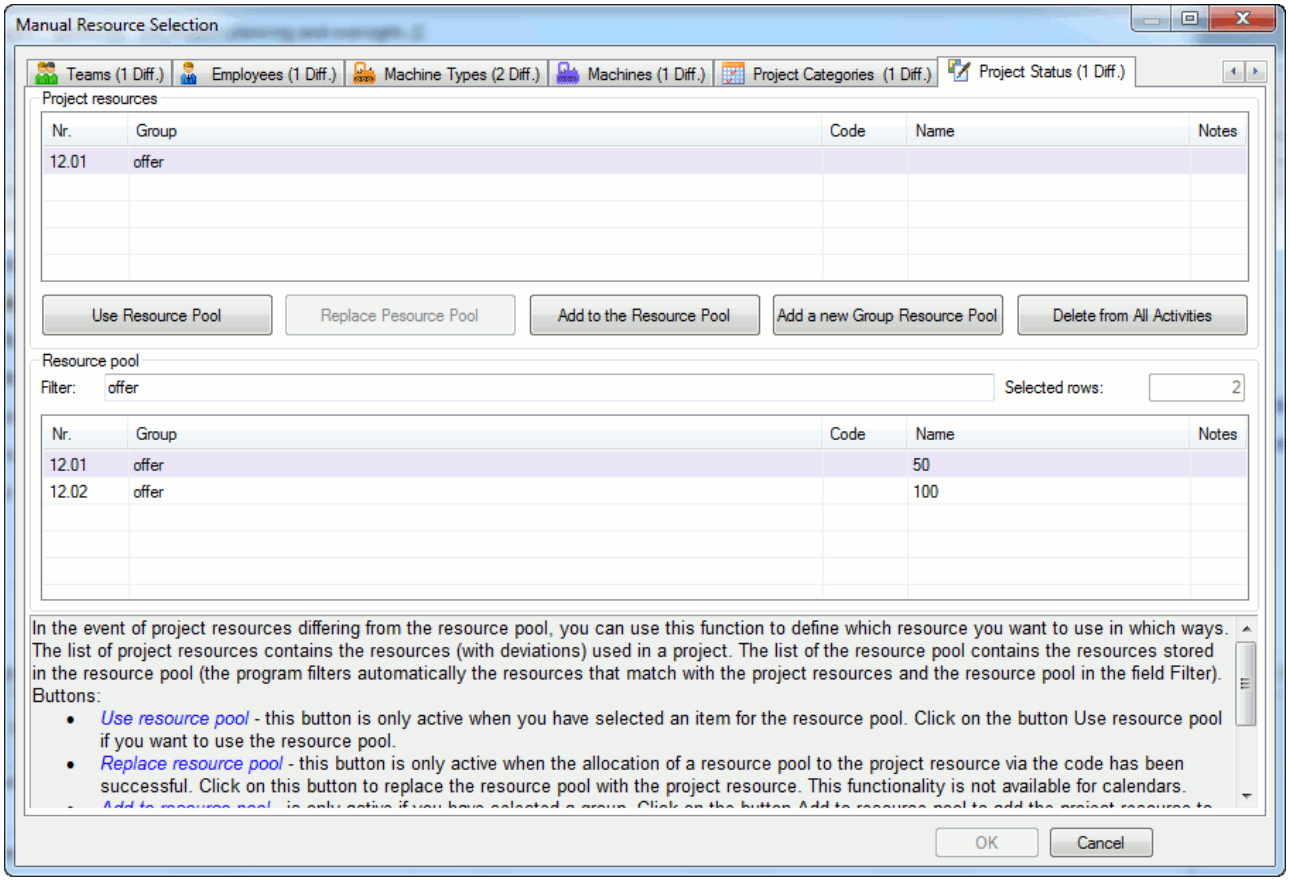
d. Click on the button **Add to a new group in the resource pool** to add the project resource and the group name to the new group in the resource pool.
e. Click on the button **Delete from all project activities** to delete the project resource.

3. If necessary, switch to another tab to align the resources.
4. Click on the button **OK**.

Manual selection of project status

In the event of project resources differing from the resource pool, you can use this function to define which resource you want to use in which ways.

The list of project resources contains the resources (with deviations) used in a project. The list of the resource pool contains the resources stored in the resource pool (the program filters automatically the resources that match with the project resources and the resource pool in the field **Filter**).



In order to manually align the project roles with the roles contained in the resource pool file, you do as follows:

1. In the table **Project resources** mark the role you want to align.
2. Click on one of the following buttons:
    a. Click on the button **Use resource pool** if you want to use the resource pool roles.

       Note: this button is only active when you have selected an item for the resource pool.

    b. Click on the button **Replace resource pool** to replace the resource pool role with the project resource role.

       Note: this button is only active when the allocation of a resource pool to the project resource via the code has been successful.

    c. Click on the button **Add to resource pool** to add the project resource to the resource pool (the group properties are entered into the existing group, however not the group name of the project resource).

Note: this button is only active when you have selected a group in the table Resource pool.

d. Click on the button **Add to a new group in the resource pool** to add the project resource and the group name to the new group in the resource pool.
e. Click on the button **Delete from all project activities** to delete the project resource.

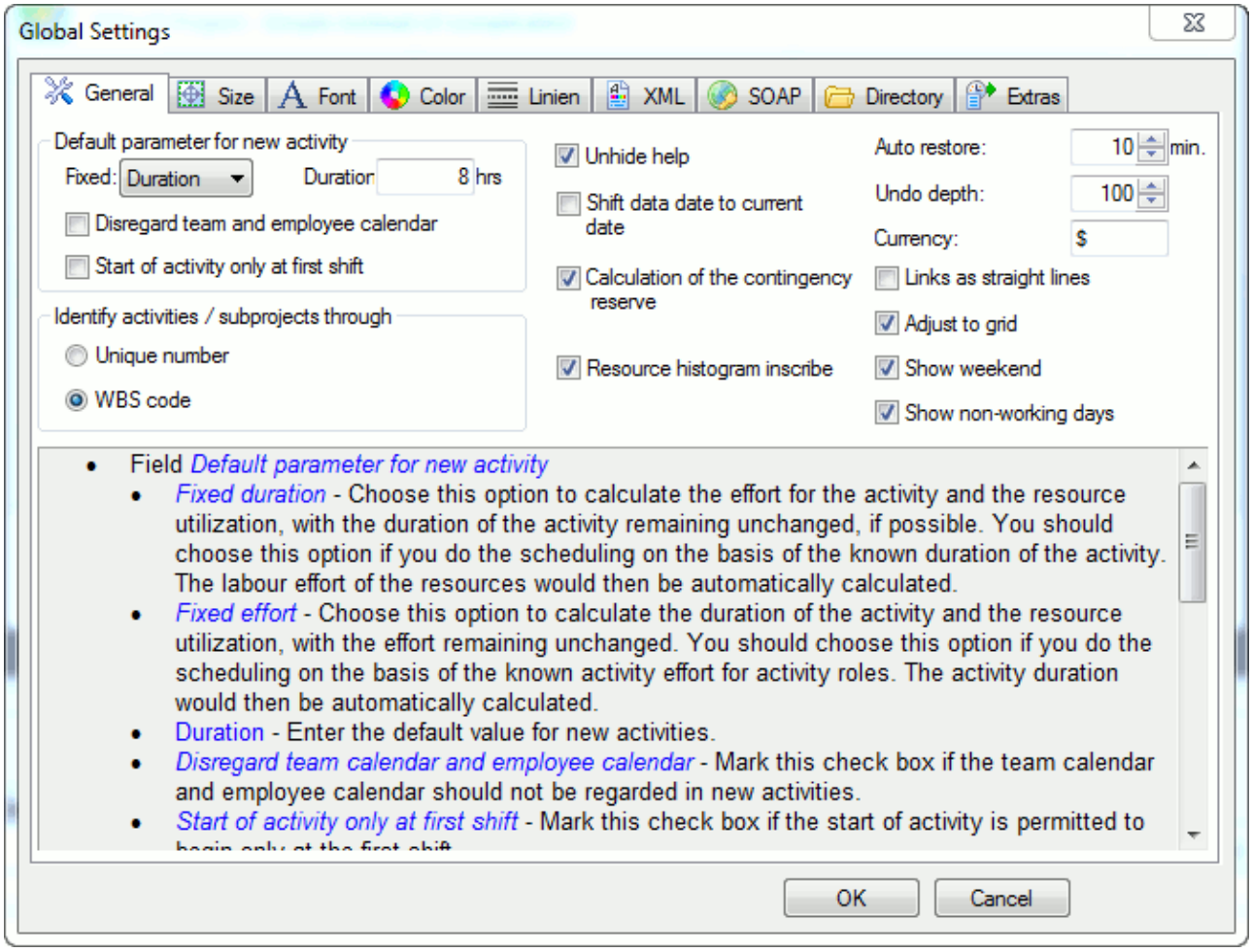
3. If necessary, switch to another tab to align the resources.
4. Click on the button **OK**.

Appendix B: Adjustments of the program environment

You can adjust Rillsoft Project's environment parameter via the menu item **Tools / Global settings ...**. The following parameters are adjustable:

- Tab **General**
  Adjusting the default parameter
- Tab **Size**
  Adjusting the size of the different objects
- Tab **Font**
  Adjusting the font of the different objects
- Tab **Colour**
  Adjusting the colour of the different objects
- Tab **Line**
  Adjusting the line types of the different objects
- Tab **XML**
  Adjusting the XML settings for the presentation of the project in the internet/intranet
- Tab **SOAP**
  Adjusting the SOAP settings for the Rillsoft Integration Server (RIS)
- Tab **Directory**
  Adjusting the directory settings to reports, templates, projects and portfolios
- Tab **Advanced**
  Adjusting the settings for the display of the tabs in views, activity properties and project / subproject properties

Adjusting default parameter



Field **Default parameter for new activity**

- **Fixed duration** - Choose this option to calculate the effort for the activity and the resource utilization, with the duration of the activity remaining unchanged, if possible.
  You should choose this option if you do the scheduling on the basis of the known duration of the activity. The labour effort of the resources would then be automatically calculated.
- **Fixed effort** - Choose this option to calculate the duration of the activity and the resource utilization, with the effort remaining unchanged.
  You should choose this option if you do the scheduling on the basis of the known activity effort for activity roles. The activity duration would then be automatically calculated.
- **Duration** - Enter the default value for new activities.
- **Disregard team calendar and employee calendar** - Mark this check box if the team calendar and employee calendar should not be regarded in new activities.
- **Start of activity only at first shift** - Mark this check box if the start of activity is permitted to begin only at the first shift.

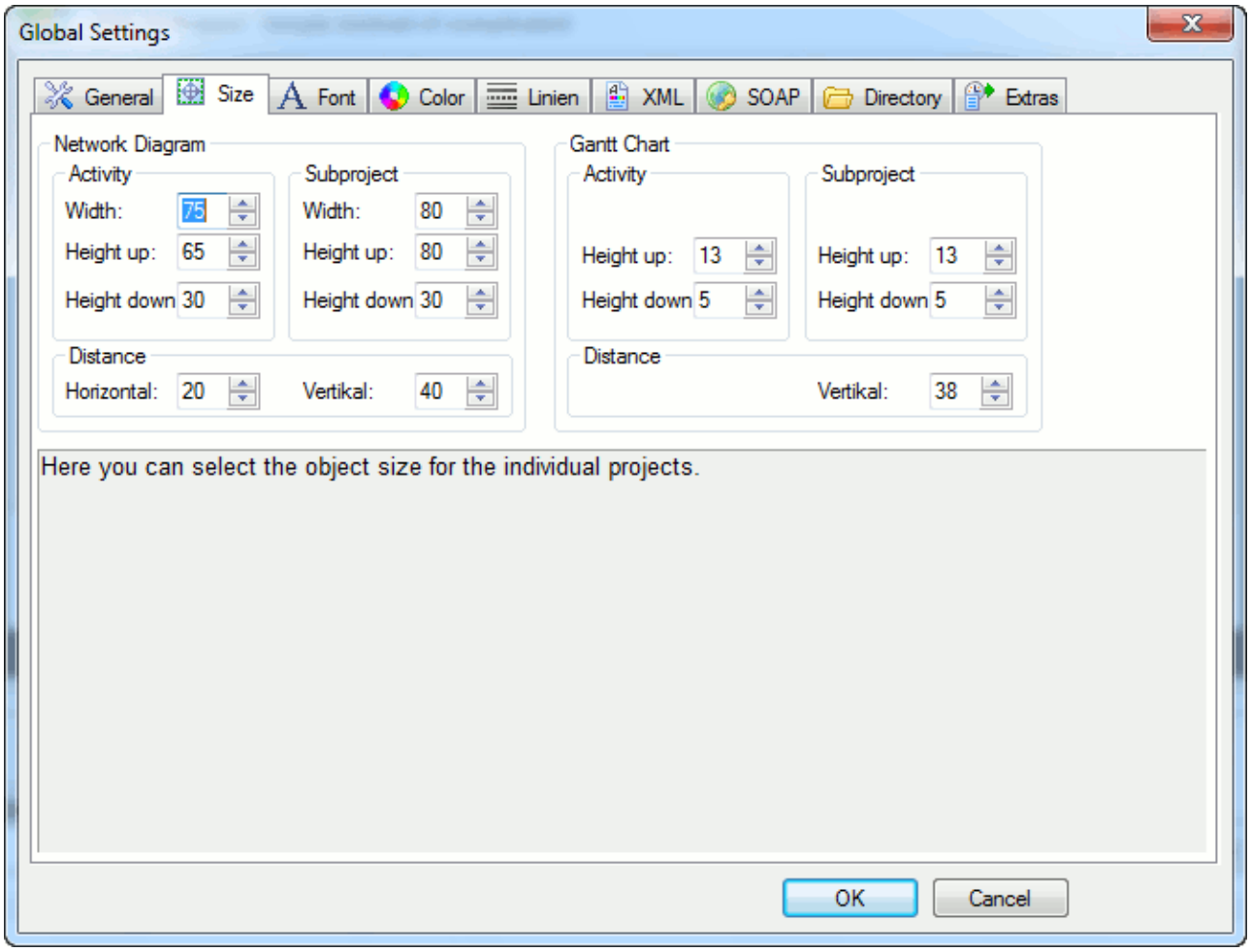
Field **Identify activities / subprojects through**

- **Unique number** - Choose this option if the activities and subprojects should be identified through a unique number.
- **WBS code** - Choose this option if the activities and subprojects should be identified through a sequential number.

- **Unhide help** - Mark this check box to unhide the help desk for all objects.

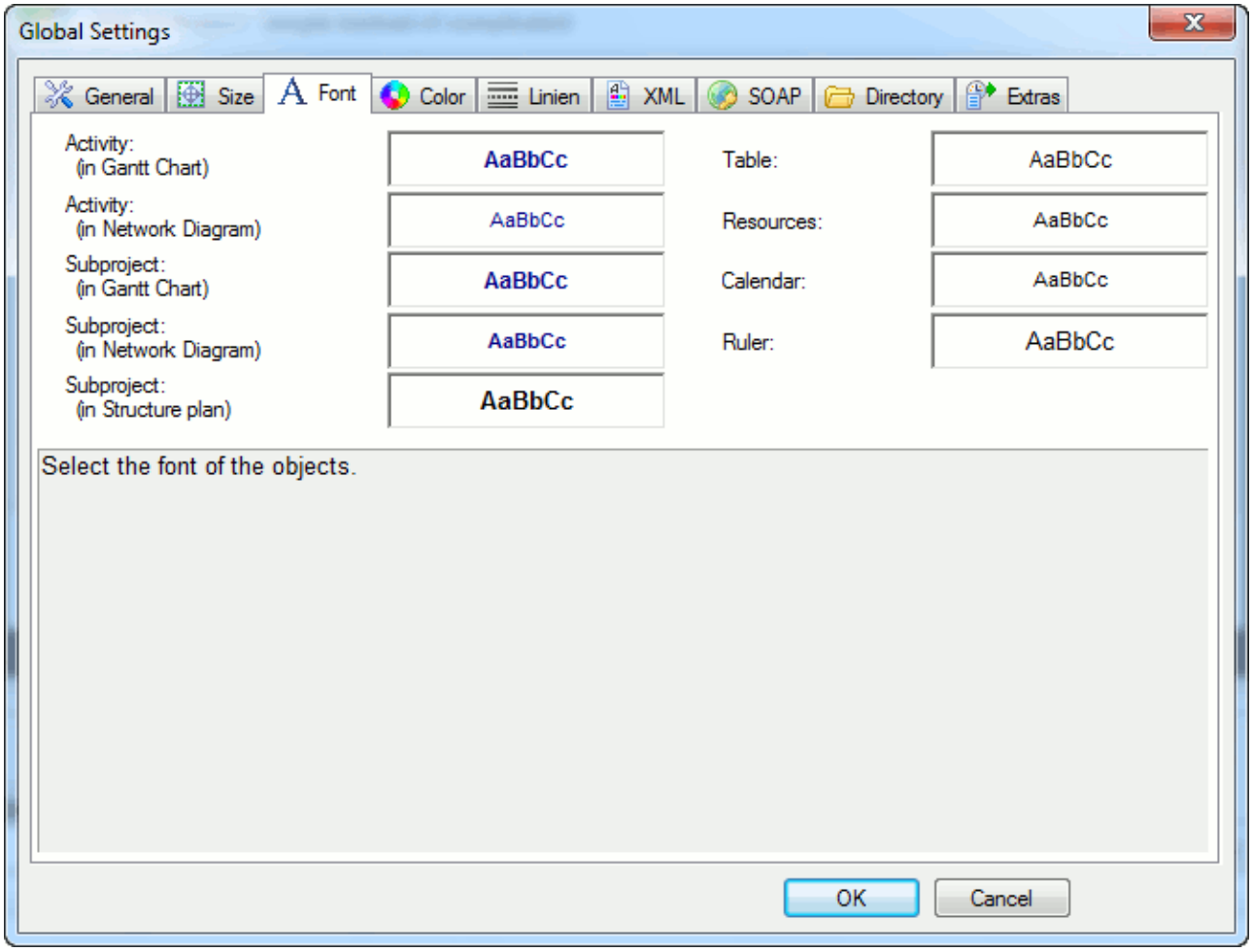
- **Shift deadline to current date** - Mark this check box to have the deadline automatically set to the current date when opening the project.
- **Calculation of the contingency reserve** - Mark this check box to have the contingency reserves of activities automatically calculated when making changes to the projects. If this option is deactivated, the earliest or latest possible start or finish of activity can not be displayed in the activity table.
- Field **Resource diagram**
    - **Label** - Mark this check box to attach the currrent value to the resource bars in the resource diagram.
    - **Show details** - Mark this check box to show the resource utilization in the resource diagram per hour.
- **Auto restore** - Enter the interval for the project backup into this field.
- **Undo depth** - Enter the number of processing steps you want to permit to be undone at the maximum.
- **Currency** - Enter the currency code into this field.
- **Links as straight lines** - Mark this check box to show the links between activities as straight lines.
- **Adjust to grid** - Mark this check box to adjust activities and subprojects to the grid.
- **Show weekend** - Mark this check box to show weekends and holidays in the diagrams.
- **Show non-working days** - Mark this check box to show non-working days (sickness/holidays) in the diagrams.

Adjusting the size of the different objects



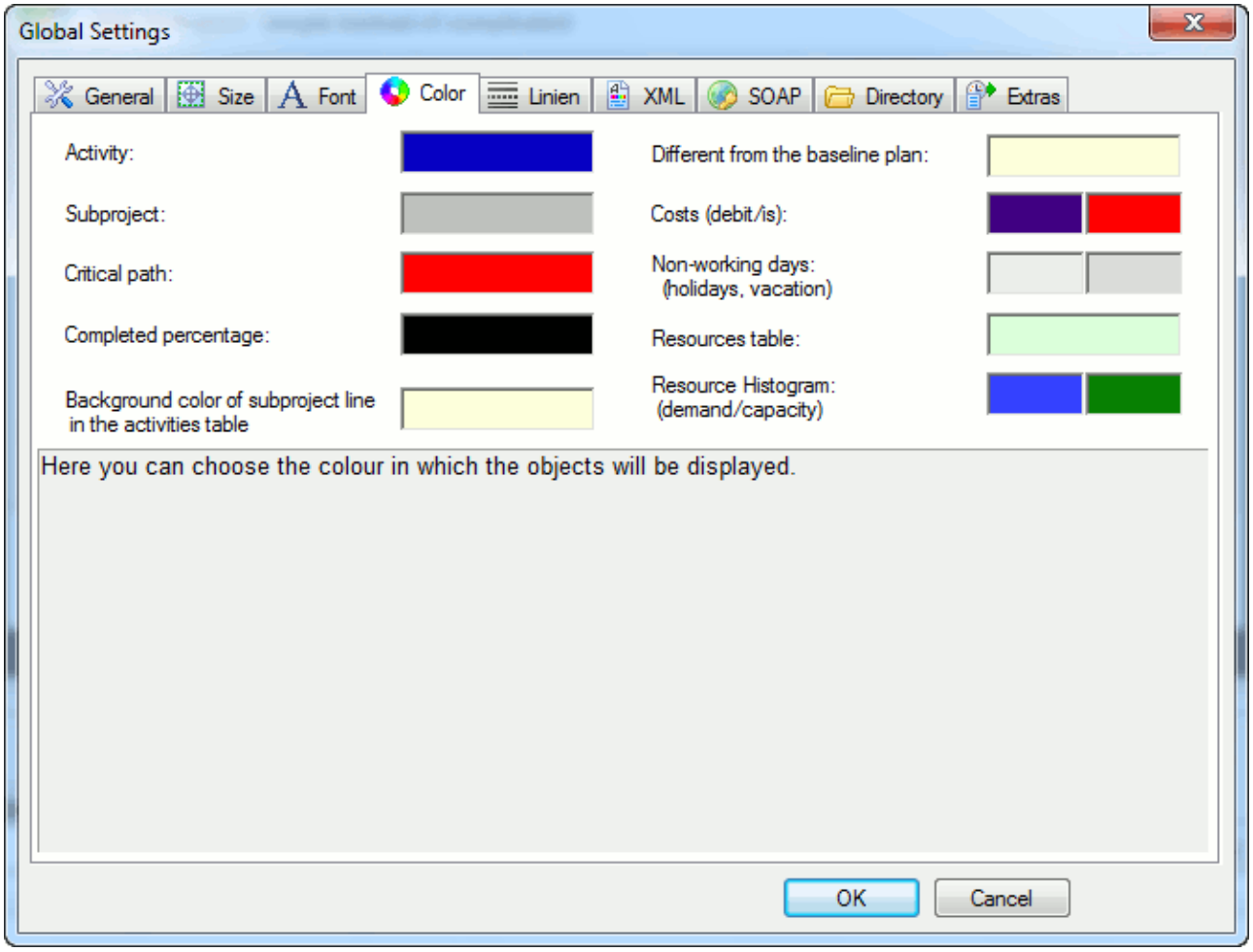
Select the size of the objects.

Adjusting the font of the different objects



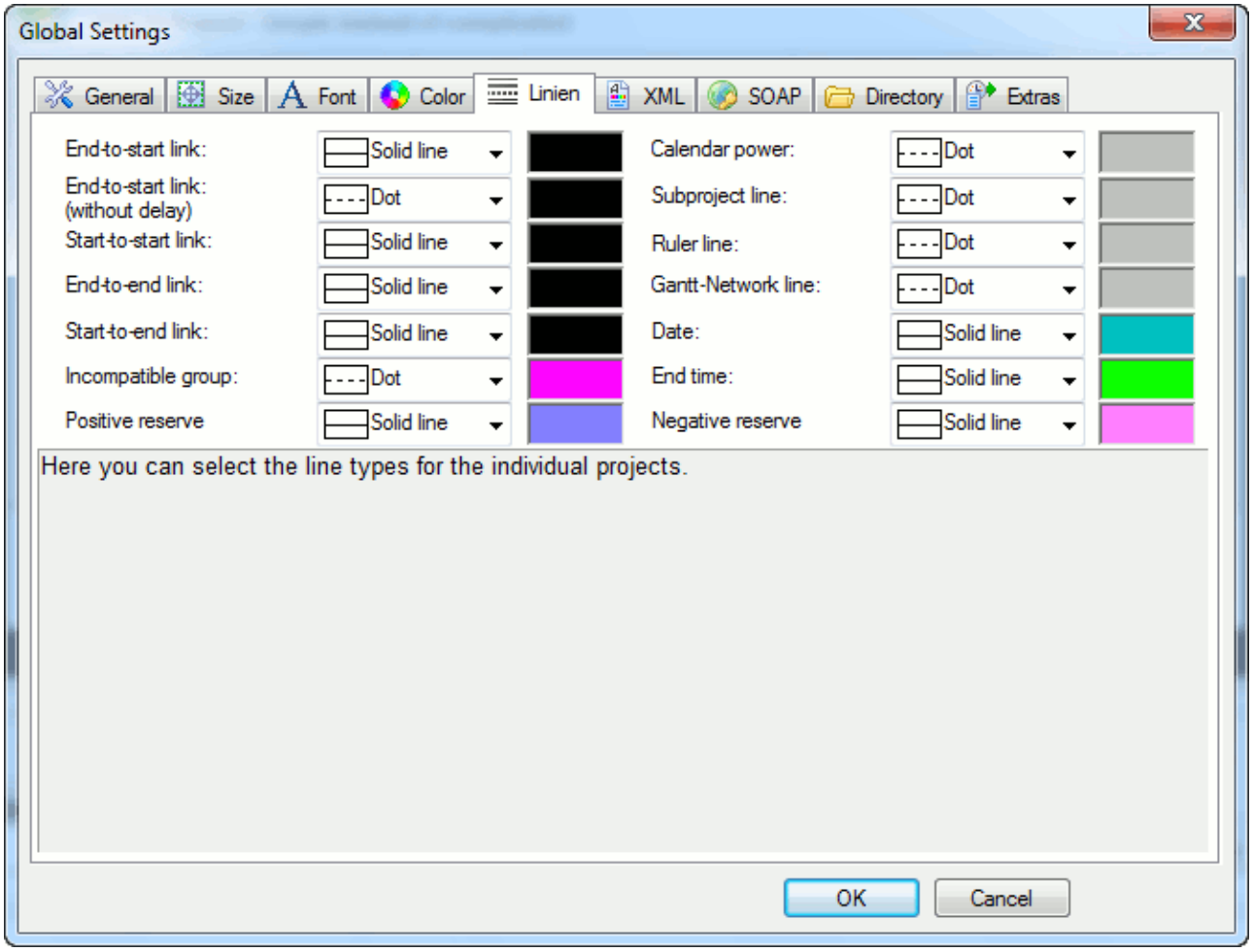
Select the font of the objects.

Adjusting the colour of the different objects



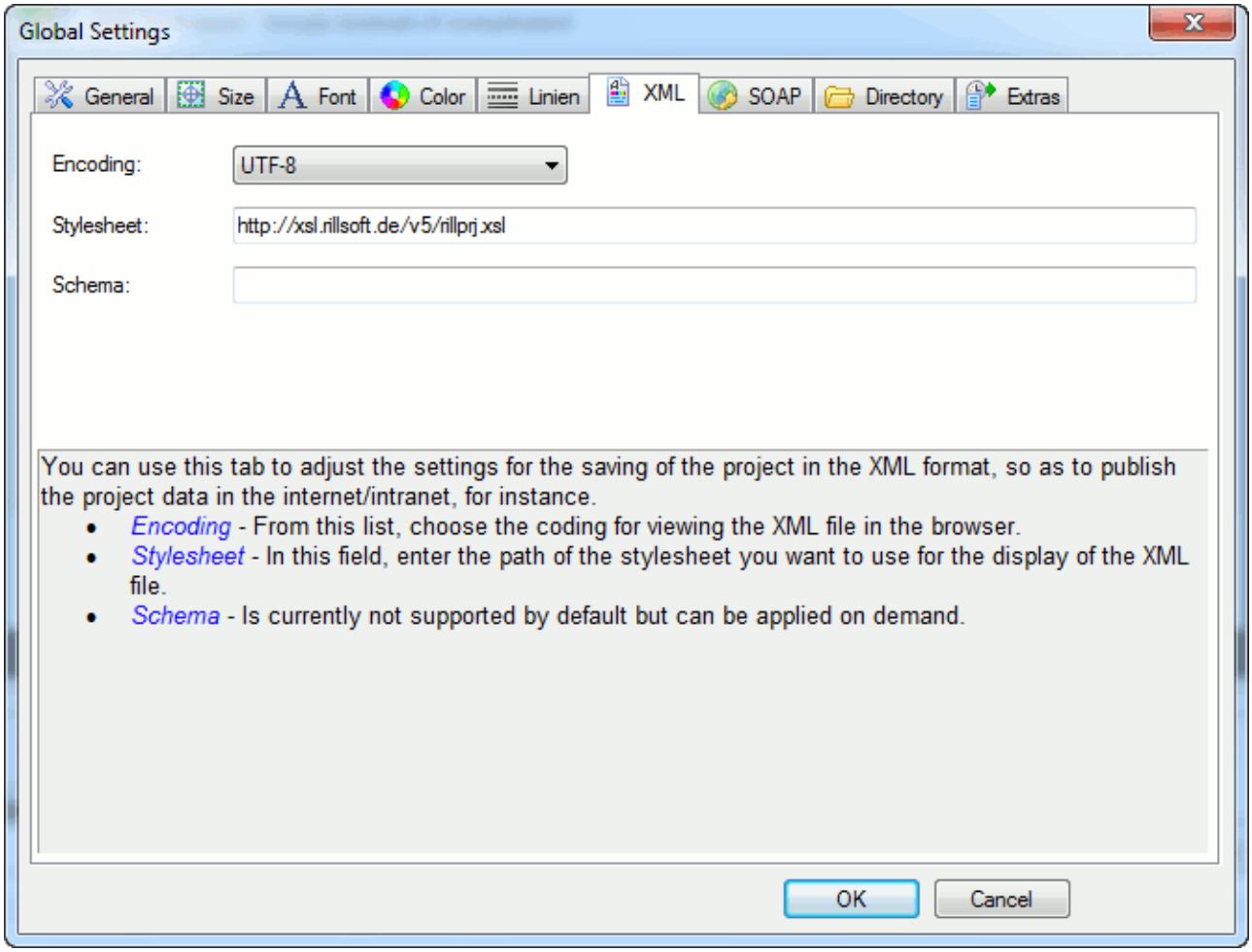
Select the colour of the objects.

Adjusting the line type of the different objects



Select the line type of the objects.

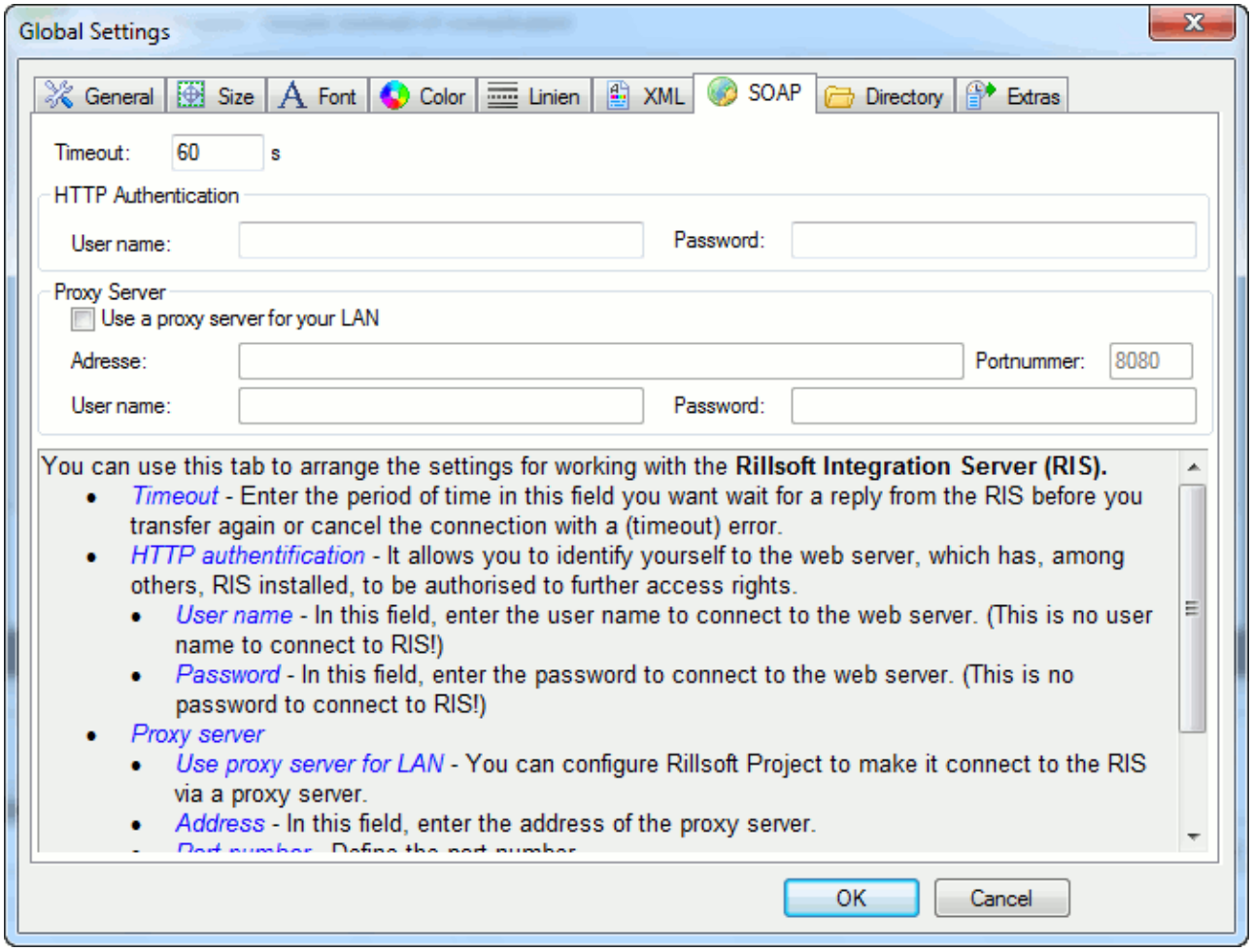
Adjusting the XML settings for the presentation of the project in the internet/intranet



You can use this tab to adjust the settings for the saving of the project in the XML format, so as to publish the project data in the internet/intranet, for instance.

- **Coding** - From this list, choose the coding for viewing the XML file in the browser.
- **Stylesheet** - In this field, enter the path of the stylesheet that you want to use for the display of the XML file.
- **Schema** - Is currently not supported by the Standard but can be applied on demand.

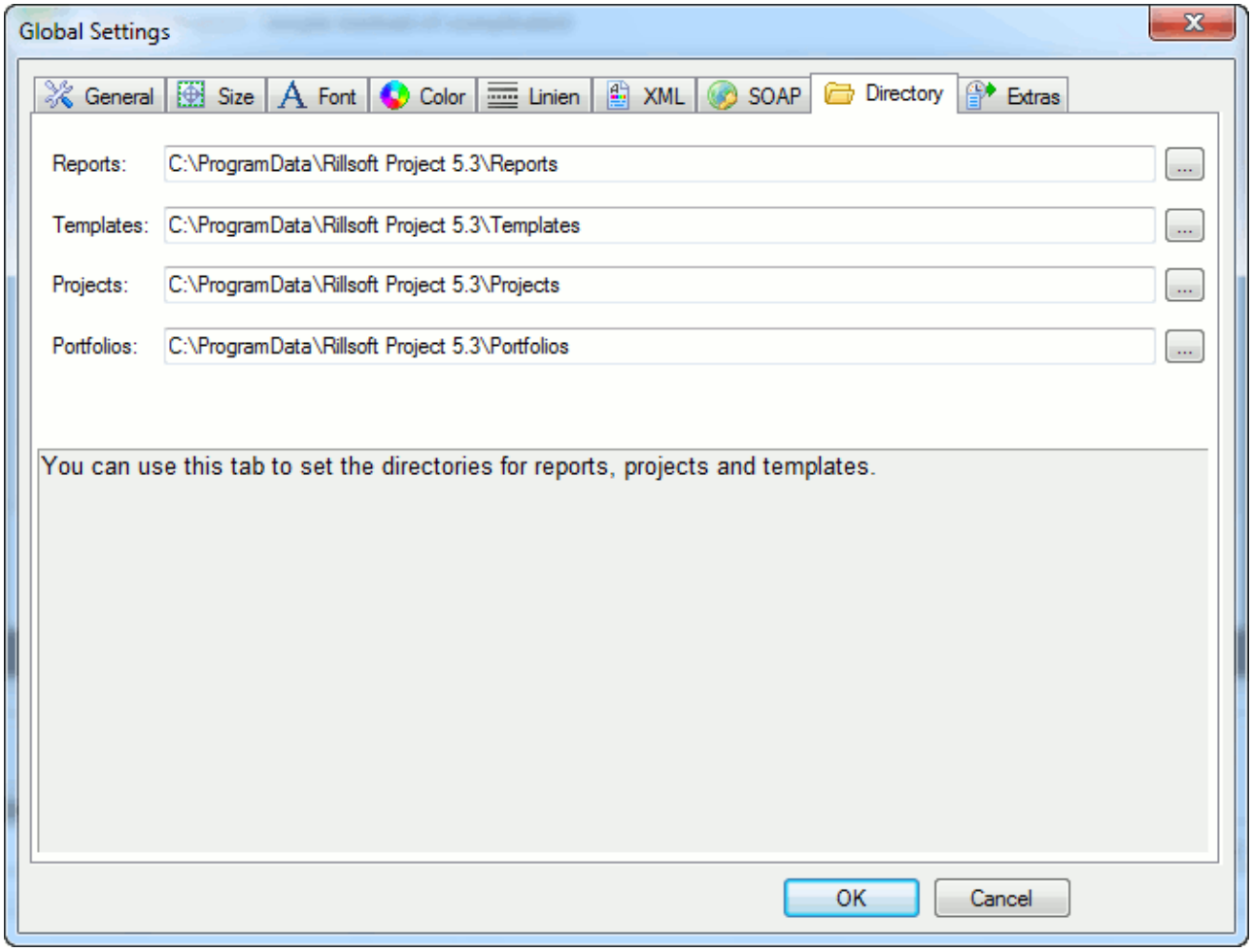
Adjusting the SOAP settings for the Rillsoft Integration Server (RIS)



You can use this tab to arrange the settings for working with the Rillsoft Integration Server (RIS).

- **Timeout** - Enter the period of time in this field you want wait for a reply from the RIS before you transfer again or cancel the connection with a (timeout) error.
- **HTTP authentification** - allows you to authenticate your computer to the web server, which has, among others, RIS installed, and be autorised for further access rights.
- **User name** - Enter your user name in this field to connect to the web server. (Note: This is not the user name to access RIS!)
- **Password** - Enter your password into this field to connect to the web server. (Note: This is not the password to access RIS!)
- **Use proxy server for LAN** - You can configure Rillsoft Project to make it connect to the RIS via a proxy server.
- **Address** - In this field, enter the address of the proxy server.
- **Port number** - Define the port number.
- **User name** - In this field, enter the user name to connect to RIS.
- **Password** - In this field, enter the password to connect to RIS.

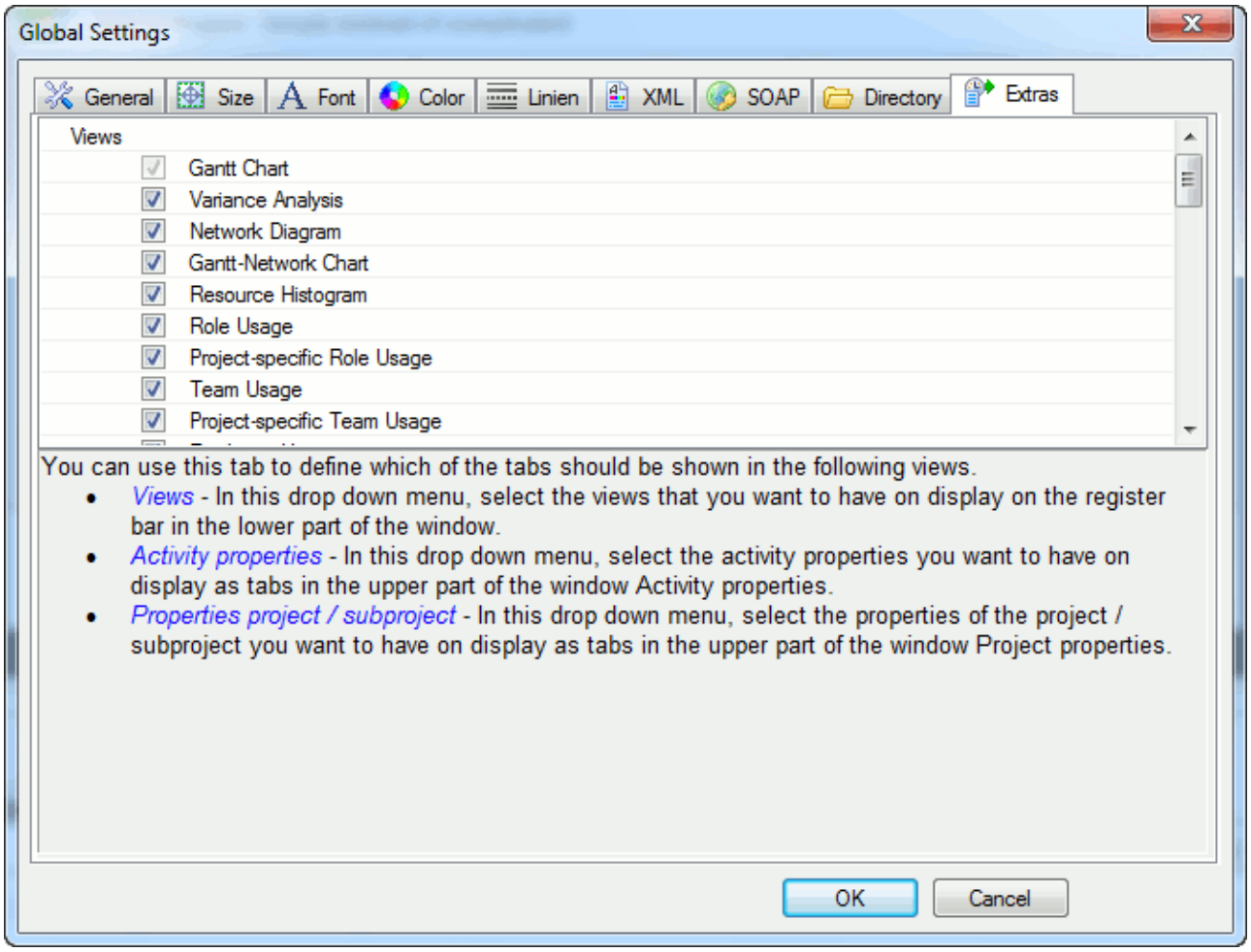
Adjusting the directories for reports, projects and templates



You can use this tab to adjust the directories for reports, projects and templates.

- **Reports** - Select a directory for the reports.
- **Templates** - Select a directory for the templates.
- **Projects** - Select a directory for the projects.
- **Portfolios** - Select a directory for the portfolios.

Adjusting the views and several object properties



You can use this tab to define which of the tabs should be shown in the following views.

- **Views** - In this drop down menu, select the views that you want to have on display on the register bar in the lower part of the window.
- **Activity properties** - In this drop down menu, select the activity properties you want to have on display as tabs in the upper part of the window Activity properties.
- **Properties project / subproject** - In this drop down menu, select the properties of the project / subproject you want to have on display as tabs in the upper part of the window Project properties.

Report structure

For working with reports, Rillsoft Projekt provides two types of structure:

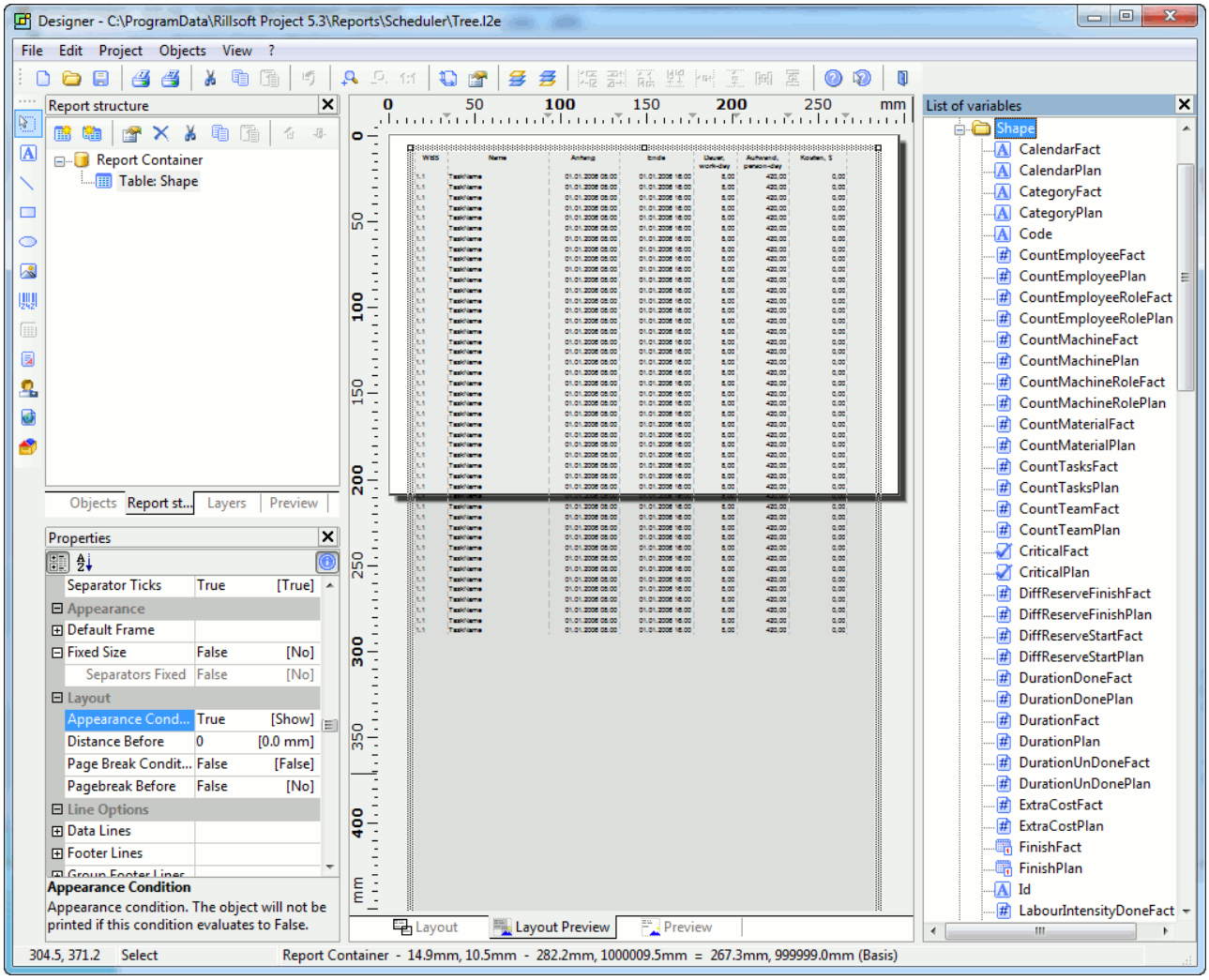
- Shape
- Tables

The variables are identical in both types.

Shape structure

The file directory **...Rillsoft Project / Reports / Scheduler / Tree.l2e**

You can view the structure of the report in the menu item **View / Window / Table structure**.



Example of the shape structure.
This structure is used for exporting to Excel. In this, the Shape table is a higher-ranking table and other tables may be added as lower ranking ones.
Information from lower ranking tables are displayed in relation to the activities.

1	**Shape**	Projects, subprojects, activities
2	**TaskEmployeeRole**	Roles
3	**TaskTeam**	Teams
4	**TaskEmployee**	Employees
5	**TaskMaterial**	Materials
6	**TaskMachineRole**	Machine types

7	**TaskMachine**	Machinery	

Shape

1	Id	TEXT	ID Number
2	LevelFact	NUMERIC	Structure depth
3	LevelPlan	NUMERIC	
4	Name	TEXT	Name
5	Code	TEXT	Code
6	CalendarFact	TEXT	Assigned calendars
7	CalendarPlan	TEXT	
8	CategoryFact	TEXT	Category
9	CategoryPlan	TEXT	
10	CountTaskFact	NUMERIC	Number of activities in project / subproject
11	CountTaskPlan	NUMERIC	
12	CriticalFact	BOOLEAN	Whether activity is critical
13	CriticalPlan	BOOLEAN	
14	StatusFact	TEXT	Status
15	StatusPlan	TEXT	
16	LabourIntensityFact	NUMERIC	Effort
17	LabourIntensityPlan	NUMERIC	
18	LabourIntensityDoneFact	NUMERIC	Completed effort
19	LabourIntensityDonePlan	NUMERIC	
20	LabourIntensityUnDoneFact	NUMERIC	Open effort
21	LabourIntensityUnDonePlan	NUMERIC	

22	DurationFact	NUMERIC	Duration
23	DurationPlan	NUMERIC	
24	DurationDoneFact	NUMERIC	Completed duration
25	DurationDonePlan	NUMERIC	
26	DurationUnDoneFact	NUMERIC	Open duration
27	DurationUnDonePlan	NUMERIC	
28	StartFact	Date	Start
29	StartPlan	Date	
30	FinishFact	Date	Finish
31	FinishPlan	Date	
32	ReserveStartFact	Date	Latest possible start
33	ReserveStartPlan	Date	
34	ReserveFinishFact	Date	Latest possible finish
35	ReserveFinishPlan	Date	
36	DiffReserveStartFact	NUMERIC	Possible time buffer before start
37	DiffReserveStartPlan	NUMERIC	
38	DiffReserveFinishFact	NUMERIC	Possible time buffer before finish
39	DiffReserveFinishPlan	NUMERIC	
40	ExtraCostFact	NUMERIC	Fixed costs
41	ExtraCostPlan	NUMERIC	
42	PersonCostFact	NUMERIC	Personnel costs
43	PersonCostPlan	NUMERIC	
44	PriorityFact	NUMERIC	Priority

45	PriorityPlan	NUMERIC	
46	PaymentCostFact	NUMERIC	Amount of invoice
47	PaymentCostPlan	NUMERIC	
48	PaymentDelayFact	NUMERIC	Payment period
49	PaymentDelayPlan	NUMERIC	
50	PaymentTimeFact	NUMERIC	Receipt of payment
51	PaymentTimePlan	NUMERIC	
52	PercentFact	NUMERIC	Completed percentage
53	PercentPlan	NUMERIC	
54	PersonalTypFact	NUMERIC	Which personnel resource is assigned
55	PersonalTypPlan	NUMERIC	
56	PhysicalMetricFact	TEXT	Measurement unit of the labour output
57	PhysicalMetricPlan	TEXT	
58	PhysicalNormaFact	NUMERIC	Norm of labour output
59	PhysicalNormaPlan	NUMERIC	
60	PhysicalVolumeDoneFact	NUMERIC	Completed quantity
61	PhysicalVolumeDonePlan	NUMERIC	
62	PhysicalVolumeFact	NUMERIC	Quantity of labour output
63	PhysicalVolumePlan	NUMERIC	
64	PhysicalVolumeUnDoneFact	NUMERIC	Open quantity of labour output
65	PhysicalVolumeUnDonePlan	NUMERIC	
66	PrimaryCalendarFact	BOOLEAN	Whether an own calendar defines the activity

67	PrimaryCalendarPlan	BOOLEAN	
68	PrimaryStartFact	BOOLEAN	Start of activity with start of shift
69	PrimaryStartPlan	BOOLEAN	
70	ShapeTypFact	NUMERIC	Object type (project, activity ...)
71	ShapeTypPlan	NUMERIC	
72	MaterialCostFact	NUMERIC	Material costs
73	MaterialCostPlan	NUMERIC	
74	MachineCostFact	NUMERIC	Machine type costs
75	MachineCostPlan	NUMERIC	
76	TotalCostFact	NUMERIC	Shared costs
77	TotalCostPlan	NUMERIC	
78	NotesFact	TEXT	Notes
79	NotesPlan	TEXT	
80	UserField1Fact	TEXT	User-defined fields
81	UserField1Plan	TEXT	

Table structure

Reports that can be opened by selecting the menu item **Tools / Reports / ...**:

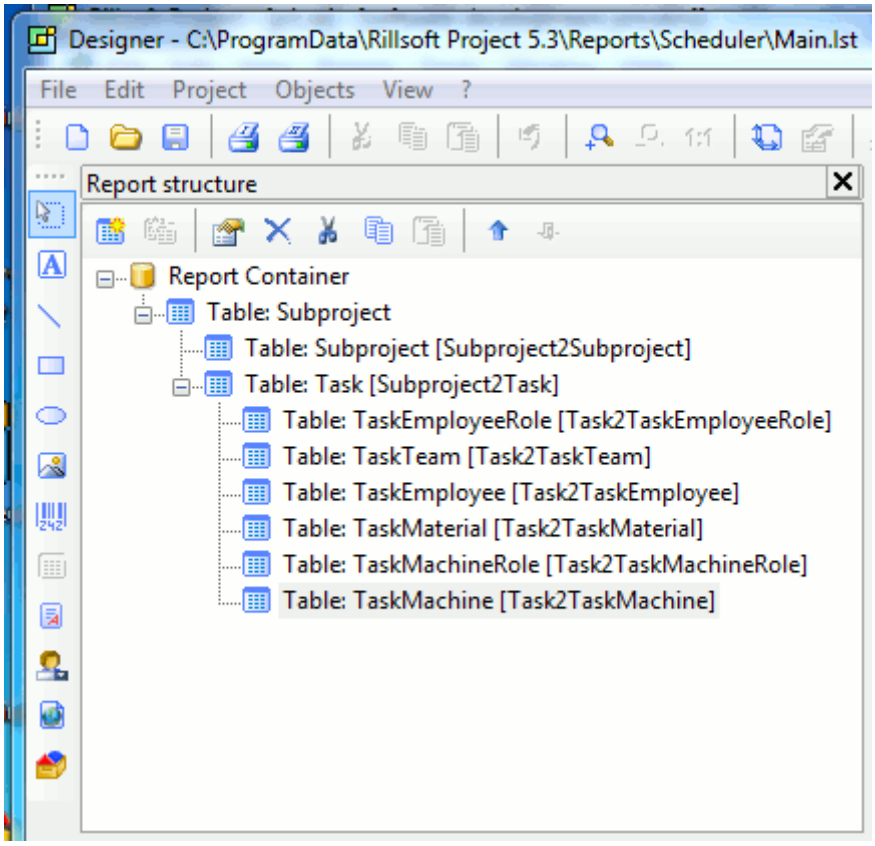
- project schedule
- project resources
- resource pool

refer to the corresponding tables.

Tables for project schedules

The file directory (...Rillsoft Project/Reports/Scheduler/...lst)

You can view the structure of the report in the menu item **View / Window / Table structure**.



Example of the report's structure for the general project schedule report.

1	**Subproject**	Projects, subprojects
2	**Task**	Activities
3	**TaskEmployeeRole**	Resource roles
4	**TaskTeam**	Resource teams
5	**TaskEmployee**	Employees
6	**TaskMaterial**	Materials
7	**TaskMachineRole**	Machine types
8	**TaskMachine**	Machinery

In this, the Subproject table is a higher-ranking table and other tables may be added as lower ranking ones.

Subproject

1	Id	TEXT	ID Number
2	LevelFact	NUMERIC	Structure depth
3	LevelPlan	NUMERIC	
4	Name	TEXT	Name
5	Code	TEXT	Code
6	CalendarFact	TEXT	Assigned calendars
7	CalendarPlan	TEXT	
8	CategoryFact	TEXT	Category
9	CategoryPlan	TEXT	
10	StatusFact	TEXT	Status
11	StatusPlan	TEXT	
12	LabourIntensityFact	NUMERIC	Effort
13	LabourIntensityPlan	NUMERIC	
14	LabourIntensityDoneFact	NUMERIC	Completed effort
15	LabourIntensityDonePlan	NUMERIC	
16	LabourIntensityUnDoneFact	NUMERIC	Open effort
17	LabourIntensityUnDonePlan	NUMERIC	
18	DurationFact	NUMERIC	Duration
19	DurationPlan	NUMERIC	
20	StartFact	Date	Start
21	StartPlan	Date	
22	FinishFact	Date	Finish
23	FinishPlan	Date	

24	ReserveStartFact	Date	Latest possible start
25	ReserveStartPlan	Date	
26	ReserveFinishFact	Date	Latest possible finish
27	ReserveFinishPlan	Date	
28	DiffReserveStartFact	NUMERIC	Possible time buffer before start
29	DiffReserveStartPlan	NUMERIC	
30	DiffReserveFinishFact	NUMERIC	Possible time buffer before finish
31	DiffReserveFinishPlan	NUMERIC	
32	ExtraCostFact	NUMERIC	Fixed costs
33	ExtraCostPlan	NUMERIC	
34	PersonCostFact	NUMERIC	Personnel costs
35	PersonCostPlan	NUMERIC	
36	PriorityFact	NUMERIC	Priority
37	PriorityPlan	NUMERIC	
38	MaterialCostFact	NUMERIC	Material costs
39	MaterialCostPlan	NUMERIC	
40	MachineCostFact	NUMERIC	Machine type costs
41	MachineCostPlan	NUMERIC	
42	TotalCostFact	NUMERIC	Shared costs
43	TotalCostPlan	NUMERIC	
44	NotesFact	TEXT	Notes
45	NotesPlan	TEXT	
46	UserField1Fact	TEXT	User-defined fields

47	UserField1Plan	TEXT	

Task

1	Id	TEXT	ID Number
2	LevelFact	NUMERIC	Structure depth
3	LevelPlan	NUMERIC	
4	Name	TEXT	Name
5	Code	TEXT	Code
6	CalendarFact	TEXT	Assigned calendars
7	CalendarPlan	TEXT	
8	CategoryFact	TEXT	Category
9	CategoryPlan	TEXT	
10	CountEmployeeFact	NUMERIC	Number of assigned employees
11	CountEmployeePlan	NUMERIC	
12	CountEmployeeRoleFact	NUMERIC	Number of assigned roles
13	CountEmployeeRolePlan	NUMERIC	
14	CountMachineFact	NUMERIC	Number of allocated machines
15	CountMachinePlan	NUMERIC	
16	CountMachineRoleFact	NUMERIC	Number of allocated machine types
17	CountMachineRolePlan	NUMERIC	
18	CountMaterialFact	NUMERIC	Number of allocated materials
19	CountMaterialPlan	NUMERIC	
20	CountTeamFact	NUMERIC	Number of assigned teams

21	CountTeamPlan	NUMERIC	
22	StatusFact	TEXT	Status
23	StatusPlan	TEXT	
24	LabourIntensityFact	NUMERIC	Effort
25	LabourIntensityPlan	NUMERIC	
26	LabourIntensityDoneFact	NUMERIC	Completed effort
27	LabourIntensityDonePlan	NUMERIC	
28	LabourIntensityUnDoneFact	NUMERIC	Open effort
29	LabourIntensityUnDonePlan	NUMERIC	
30	DurationFact	NUMERIC	Duration
31	DurationPlan	NUMERIC	
32	DurationDoneFact	NUMERIC	Completed duration
33	DurationDonePlan	NUMERIC	
34	DurationUnDoneFact	NUMERIC	Open duration
35	DurationUnDonePlan	NUMERIC	
36	StartFact	Date	Start
37	StartPlan	Date	
38	FinishFact	Date	Finish
39	FinishPlan	Date	
40	ReserveStartFact	Date	Latest possible start
41	ReserveStartPlan	Date	
42	ReserveFinishFact	Date	Latest possible finish
43	ReserveFinishPlan	Date	

44	DiffReserveStartFact	NUMERIC	Possible time buffer before start
45	DiffReserveStartPlan	NUMERIC	
46	DiffReserveFinishFact	NUMERIC	Possible time buffer before finish
47	DiffReserveFinishPlan	NUMERIC	
48	ExtraCostFact	NUMERIC	Fixed costs
49	ExtraCostPlan	NUMERIC	
50	PersonCostFact	NUMERIC	Personnel costs
51	PersonCostPlan	NUMERIC	
52	PersonalTypFact	NUMERIC	Which personnel resource is assigned
53	PersonalTypPlan	NUMERIC	
54	PhysicalVolumenMetricFact	TEXT	Measurement unit of the labour output
55	PhysicalVolumenMetricPlan	TEXT	
56	PhysicalVolumenNormaFact	NUMERIC	Norm of labour output
57	PhysicalVolumenNormaPlan	NUMERIC	
58	PhysicalVolumeDoneFact	NUMERIC	Completed quantity
59	PhysicalVolumeDonePlan	NUMERIC	
60	PhysicalVolumeFact	NUMERIC	Quantity of labour output
61	PhysicalVolumePlan	NUMERIC	
62	PhysicalVolumeUnDoneFact	NUMERIC	Open quantity of labour output
63	PhysicalVolumeUnDonePlan	NUMERIC	
64	PrimaryCalendarFact	BOOLEAN	Whether an own calendar defines the activity
65	PrimaryCalendarPlan	BOOLEAN	

66	PrimaryStartFact	BOOLEAN	Start of activity with start of shift
67	PrimaryStartPlan	BOOLEAN	
68	PercentFact	NUMERIC	Percentage of completion
69	PercentPlan	NUMERIC	
70	Pos	NUMERIC	Position of the allocated resource
71	PriorityFact	NUMERIC	Priority
72	PriorityPlan	NUMERIC	
73	MaterialCostFact	NUMERIC	Material costs
74	MaterialCostPlan	NUMERIC	
75	MachineCostFact	NUMERIC	Machine type costs
76	MachineCostPlan	NUMERIC	
77	TotalCostFact	NUMERIC	Shared costs
78	TotalCostPlan	NUMERIC	
79	NotesFact	TEXT	Notes
80	TotalCostPlan	NUMERIC	
81	CriticalFact	BOOLEAN	Whether activity is critical
82	CriticalPlan	BOOLEAN	
83	UserField1Fact	TEXT	User-defined fields
84	UserField1Plan	TEXT	

TaskEmployeeRole

1	Id	TEXT	ID Number
2	Code	TEXT	Code

3	CostFact	NUMERIC	Costs
3	CostPlan	NUMERIC	
4	QuantityFact	NUMERIC	Quantity of resources
5	QuantityPlan	NUMERIC	
6	RangFact	TEXT	Qualification
7	RangPlan	TEXT	
8	Name	TEXT	Name
9	NotesFact	TEXT	Notes
10	NotesPlan	TEXT	
11	ResourceCostFact	NUMERIC	Resource costs
12	ResourceCostPlan	NUMERIC	
13	ResourceVolumeFact	NUMERIC	Resource effort
14	ResourceVolumePlan	NUMERIC	
15	UtilizationFact	NUMERIC	Utilization
16	UtilizationPlan	NUMERIC	
17	UseNotesFact	TEXT	Notes for a role within an activity
18	UseNotesPlan	TEXT	

TaskEmployee

1	CalendarFact	TEXT	Calendar
2	CalendarPlan	TEXT	
3	Code	NUMERIC	Code
4	CostFact	NUMERIC	Costs
5	CostPlan	NUMERIC	

6	EfficiencyFact	NUMERIC	Productivity
7	EfficiencyPlan	NUMERIC	
8	EmployeeRoleFact	TEXT	Role
9	EmployeeRolePlan	TEXT	
10	HolidayFact	TEXT	Non-working days
11	HolidayPlan	TEXT	
12	Id	TEXT	ID Number
13	Name	TEXT	Name
14	NotesFact	TEXT	Notes
15	NotesPlan	TEXT	
16	ResourceCostFact	NUMERIC	Resource costs
17	ResourceCostPlan	NUMERIC	
18	ResourceVolumeFact	NUMERIC	Resource effort
19	ResourceVolumePlan	NUMERIC	
20	TeamFact	TEXT	Team membership
21	TeamPlan	TEXT	
22	UtilizationFact	NUMERIC	Utilization
23	UtilizationPlan	NUMERIC	
24	UtilizationExeptionFact	TEXT	Absence of the employee from activity
25	UtilizationExeptionPlan	TEXT	
26	UseNotesFact	TEXT	Notes for an employee within an activity
27	UseNotesPlan	TEXT	

TaskTeam

1	CalendarFact	TEXT	Calendar
2	CalendarPlan	TEXT	
3	Code	NUMERIC	Code
4	CostFact	NUMERIC	Costs
5	CostPlan	NUMERIC	
6	Group	TEXT	Name of team
8	ProductivityFact	TEXT	Productivity
9	ProductivityPlan	TEXT	
10	HolidayFact	TEXT	Non-working days
11	HolidayPlan	TEXT	
12	Id	TEXT	ID Number
13	Name	TEXT	Name of working group
14	NotesFact	TEXT	Notes
15	NotesPlan	TEXT	
16	ResourceCostFact	NUMERIC	Resource costs
17	ResourceCostPlan	NUMERIC	
18	ResourceVolumeFact	NUMERIC	Resource effort
19	ResourceVolumePlan	NUMERIC	
22	UtilizationFact	NUMERIC	Utilization
23	UtilizationPlan	NUMERIC	
24	UseNotesFact	TEXT	Notes for a team within an activity
25	UseNotesPlan	TEXT	

TaskMachineRole

1	Id	TEXT	ID Number
2	Code	TEXT	Code
3	CostFact	NUMERIC	Costs
4	CostPlan	NUMERIC	
5	Group	TEXT	Name of group
6	QuantityFact	NUMERIC	Quantity of resources
7	QuantityPlan	NUMERIC	
8	MetricFact	TEXT	Measurement unit
9	MetricPlan	TEXT	
10	Name	TEXT	Name
11	NotesFact	TEXT	Notes
12	NotesPlan	TEXT	
13	ResourceCostFact	NUMERIC	Resource costs
14	ResourceCostPlan	NUMERIC	
15	ResourceVolumeFact	NUMERIC	Resource effort
16	ResourceVolumePlan	NUMERIC	
17	ShareIDFact	NUMERIC	Shared machine types
18	ShareIDPlan	NUMERIC	
19	UtilizationFact	NUMERIC	Utilization
20	UtilizationPlan	NUMERIC	
21	UseNotesFact	TEXT	Notes for a machine type within an activity
22	UseNotesPlan	TEXT	

TaskMachine

1	Id	TEXT	ID Number
2	Code	TEXT	Code
3	CostFact	NUMERIC	Costs
4	CostPlan	NUMERIC	
5	MachineRoleFact	NUMERIC	Machine type
6	MachineRolePlan	NUMERIC	
7	Name	TEXT	Name
8	NotesFact	TEXT	Notes
9	NotesPlan	TEXT	
10	ResourceCostFact	NUMERIC	Resource costs
11	ResourceCostPlan	NUMERIC	
12	ResourceVolumeFact	NUMERIC	Resource effort
13	ResourceVolumePlan	NUMERIC	
14	ShareIDFact	NUMERIC	Shared machine types
15	ShareIDPlan	NUMERIC	
16	TeamFact	TEXT	Team membership
17	TeamPlan	TEXT	
18	UtilizationFact	NUMERIC	Utilization
19	UtilizationPlan	NUMERIC	
20	UseNotesFact	TEXT	Notes for a machine within an activity
21	UseNotesPlan	TEXT	

TaskMaterial

1	Id	TEXT	ID Number
2	Code	TEXT	Code
3	CostFact	NUMERIC	Costs
4	CostPlan	NUMERIC	
5	Group	TEXT	Name of group
6	Name	TEXT	Name
7	NotesFact	TEXT	Notes
8	NotesPlan	TEXT	
9	ResourceCostFact	NUMERIC	Resource costs
10	ResourceCostPlan	NUMERIC	
11	ResourceAmountFact	NUMERIC	Resource effort
12	ResourceAmountPlan	NUMERIC	
13	MetricFact	TEXT	Shared machine types
14	MetricPlan	TEXT	
15	UseNotesFact	TEXT	Notes for a material within an activity
16	UseNotesPlan	TEXT	

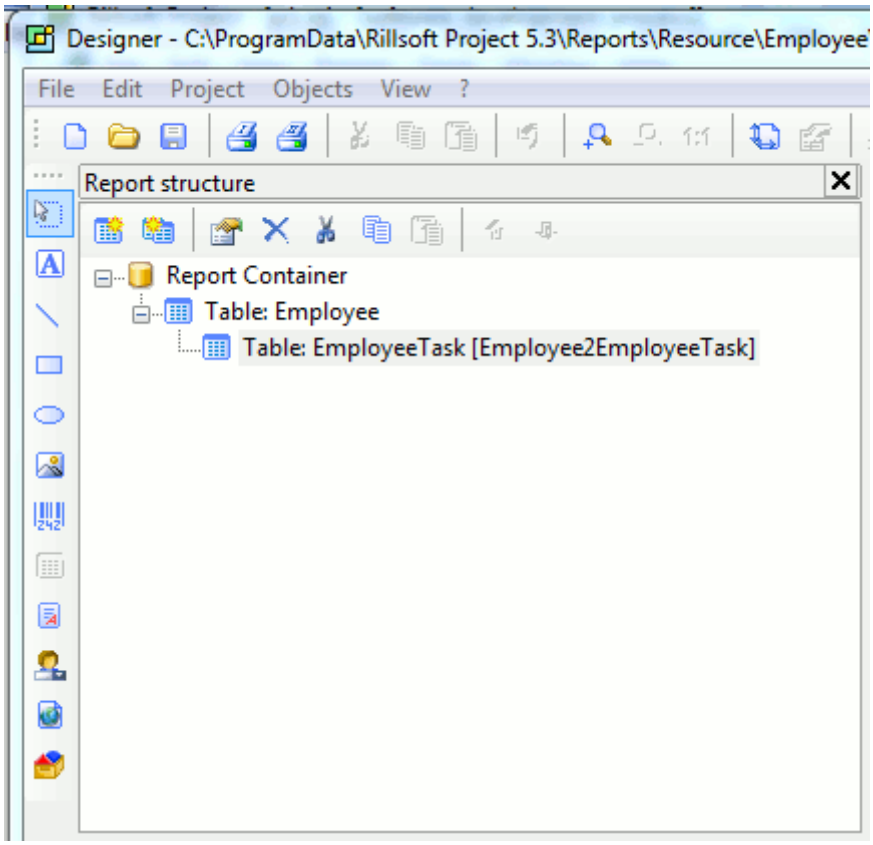
Tables for project resources

The file directory (…Rillsoft Project/Reports/Resource/…lst)

These tables allow you to gain information of the project regarding to its project resources. The following reports have been especially designed for project resources:

- Roles
- Teams
- Employees
- Material
- Machine types
- Machinery

You can view the structure of the report in the menu item **View / Window / Table structure**.



Example of the report's structure for the general project resource - employee report.

The Project resources table is a higher-ranking table and other tables may be added as lower ranking ones.

Roles

- EmployeeRole shows resource roles
- EmployeeRoleTask shows information on activity for selected role

EmployeeRole

1	Id	TEXT	ID Number

2	Code	TEXT	Code
3	Cost	NUMERIC	Unit price
4	Rank	TEXT	Qualification
5	Name	TEXT	Name
6	Notes	TEXT	Notes
7	TotalCost	NUMERIC	Costs within the project
8	TotalVolume	NUMERIC	Efforts within the project
9	Start	Date	Start of assigment
10	Finish	Date	Finish of assignment

Teams

- Team shows resource team
- TeamTask shows information on activity for selected team

Team

1	Id	TEXT	ID Number
2	Code	TEXT	Code
3	Cost	NUMERIC	Unit price
4	Calendar	TEXT	Calendar
5	Holiday	TEXT	Non-working days
6	Group	TEXT	Name of group
7	Name	TEXT	Name
8	Notes	TEXT	Notes
9	TotalCost	NUMERIC	Costs within the project
10	TotalVolume	NUMERIC	Efforts within the project
11	Start	Date	Start of assigment

12	Finish	Date	Finish of assignment

Employees

- Employee shows resource employees
- EmployeeTask shows information on activity for selected employees

Employee

1	Id	TEXT	ID Number
2	Code	TEXT	Code
3	Cost	NUMERIC	Unit price
4	Calendar	TEXT	Calendar
5	Holiday	TEXT	Non-working days
6	EmployeerRole	TEXT	Name of group
7	Team	TEXT	Name of group
8	Name	TEXT	Name
9	Notes	TEXT	Notes
10	TotalCost	NUMERIC	Costs within the project
11	TotalVolume	NUMERIC	Efforts within the project
12	Start	Date	Start of assigment
13	Finish	Date	Finish of assignment

Material

- Material shows resource material
- MaterialTask shows information on activity for selected materials

Material

1	Id	TEXT	ID Number
2	Code	TEXT	Code

3	Cost	NUMERIC	Unit price
4	Group	TEXT	Name of group
5	Name	TEXT	Name
6	Notes	TEXT	Notes
7	Metric	TEXT	Measurement unit
8	TotalCost	NUMERIC	Costs within the project
9	TotalAmount	NUMERIC	Used quantity within the project
10	Start	Date	Start of assigment
11	Finish	Date	Finish of assignment

Machine types

- MachineRole shows resource machine type
- MachineRoleTask shows information on activity for selected machine types

MachineRole

1	Id	TEXT	ID Number
2	Code	TEXT	Code
3	Cost	NUMERIC	Unit price
4	Group	TEXT	Name of group
5	Name	TEXT	Name
6	Notes	TEXT	Notes
7	Metric	TEXT	Measurement unit
8	TotalCost	NUMERIC	Costs within the project
9	TotalVolume	NUMERIC	Efforts within the project
10	ShareId	NUMERIC	Shared machine type
11	Start	Date	Start of assigment

12	Finish	Date	Finish of assignment

Machinery

- Machine shows resource machinery
- MachineTask shows information on activity for selected machine

Machine

1	Id	TEXT	ID Number
2	Code	TEXT	Code
3	Cost	NUMERIC	Unit price
4	MachineRole	TEXT	Machine type
5	Name	TEXT	Name
6	Notes	TEXT	Notes
7	TotalCost	NUMERIC	Costs within the project
8	TotalVolume	NUMERIC	Efforts within the project
9	ShareId	NUMERIC	Shared machine
10	Start	Date	Start of assigment
11	Finish	Date	Finish of assignment

Additional tables

The following tables may be subordinated to every project resource table.

1	TaskEmployeeRole	Resource roles
2	TaskTeam	Resource teams
3	TaskEmployee	Employees
4	TaskMaterial	Materials
5	TaskMachineRole	Machine roles
6	TaskMachine	Machinery

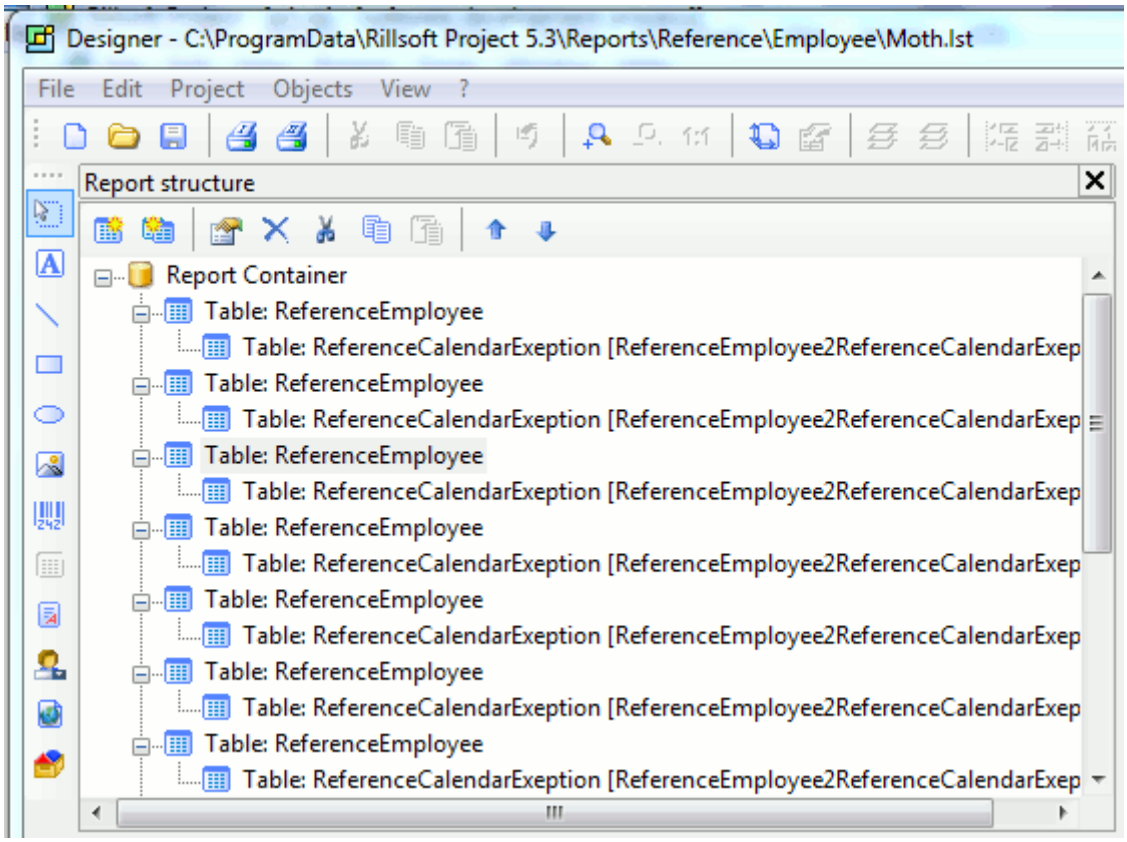
Tables for resource pool

The file directory (…Rillsoft Project/Reports/Reference/…lst)

Rillsoft Project allows you to generate resource reports from the resource pool.

1	**ReferenceCalendar**	Calendar
2	**ReferenceCalendarExeption**	Non-working days in the calendar
3	**ReferenceCostExeption**	Changes to costs
4	**ReferenceEmployeeRole**	Roles
5	**ReferenceTeam**	Teams
6	**ReferenceEmployee**	Employees
7	**ReferenceMaterial**	Materials
8	**ReferenceMachineRole**	Machine types
9	**ReferenceMachine**	Machinery

You can view the structure of the report in the menu item **View / Window / Table structure**.



Example of the report's structure for the monthly employee - holiday report.

This table is a higher-ranking table and other tables may be added to the Resource table as lower ranking ones.

ReferenceCalendar

1	Id	TEXT	ID Number
2	Code	TEXT	Code
3	Name	TEXT	Name
4	Notes	TEXT	Notes

ReferenceCalendarExeption

You can use this information to print out the holidays of employees.

1	Day1…365	NUMERIC	All days of the year
2	Month01…12	NUMERIC	All months of the year
3	MonthDay01_01…01_31	NUMERIC	All days of the 1st month
4	MonthDay02_01…02_31	NUMERIC	All days of the 2nd month
5	MonthDay03_01…03_31	NUMERIC	All days of the 3rd month
6	MonthDay04_01…04_31	NUMERIC	All days of the 4th month
7	MonthDay05_01…05_31	NUMERIC	All days of the 5th month
8	MonthDay06_01…06_31	NUMERIC	All days of the 6th month
9	MonthDay07_01…07_31	NUMERIC	All days of the 7th month
10	MonthDay08_01…08_31	NUMERIC	All days of the 8th month
11	MonthDay09_01…09_31	NUMERIC	All days of the 9th month
12	MonthDay10_01…10_31	NUMERIC	All days of the 10th month
13	MonthDay11_01…11_31	NUMERIC	All days of the 11th month
14	MonthDay12_01…12_31	NUMERIC	All days of the 12th month
15	Quarter1…4	NUMERIC	All quarter of the year

16	Week1…53	NUMERIC	All weeks of the year

ReferenceCostExeption

1	Coefficient	NUMERIC	Proportional coefficient
2	Cost	NUMERIC	Changed costs
3	Time	Date	Date of change

ReferenceEmployeeRole

1	Id	TEXT	ID Number
2	Code	TEXT	Code
3	Cost	NUMERIC	Costs
4	Rank	TEXT	Qualification
5	Name	TEXT	Name
6	Notes	TEXT	Notes

ReferenceTeam

1	Calendar	TEXT	Calendar
2	Id	TEXT	ID Number
3	Code	TEXT	Code
4	Cost	NUMERIC	Costs
5	Group	TEXT	Name of group
6	Name	TEXT	Name of team
7	Notes	TEXT	Notes
8	Productivity	TEXT	ID Number

ReferenceEmployee

1	Calendar	TEXT	Calendar
2	Id	TEXT	ID Number
3	Code	TEXT	Code
4	Cost	NUMERIC	Costs
5	Efficiency	NUMERIC	Productivity
6	Name	TEXT	Name
7	Notes	TEXT	Notes
8	EmployeeRole	TEXT	Role
9	Team	TEXT	Team
12	WorkStartDate	Date	Entry date to the company
13	WorkFinishDate	Date	Leaving date

ReferenceMaterial

1	Code	TEXT	Code
2	Cost	NUMERIC	Costs
3	Group	TEXT	Group
4	Id	TEXT	ID Number
5	Metric	TEXT	Measurement unit for materials
6	Name	TEXT	Name
7	Notes	TEXT	Notes

ReferenceMachineRole

1	Code	TEXT	Code
2	Cost	NUMERIC	Costs

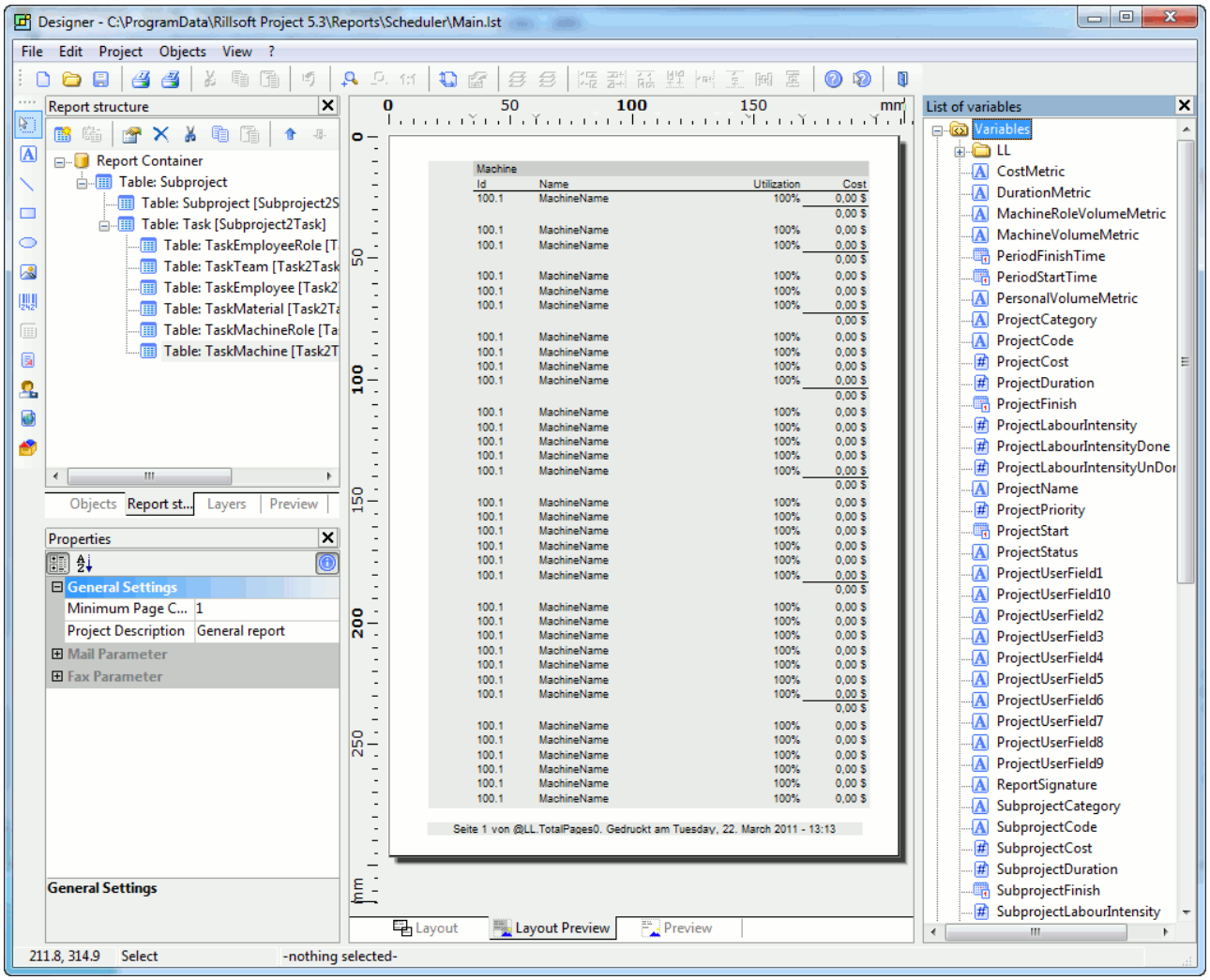
3	Group	TEXT	Group
4	Id	TEXT	ID Number
5	Metric	TEXT	Measurement unit for machine types
6	Name	TEXT	Name
7	Notes	TEXT	Notes

ReferenceMachine

1	Code	TEXT	Code
2	Cost	NUMERIC	Costs
3	Id	TEXT	ID Number
4	MachineRole	TEXT	Machine type
5	Name	TEXT	Name
6	Notes	TEXT	Notes
7	Team	TEXT	Team

Variables

You can view a list of variables in the menu item **View / Window / Table structure**.



Variables

1	CostMetric	TEXT	Currency for costs
2	DurationMetric	TEXT	Measurement unit for duration
3	MachineRoleVolumeMetric	TEXT	Measurement unit for machine types
4	MachineVolumeMetric	TEXT	Measurement unit for machinery
5	PeriodFinishTime	Date	Finish period for report
6	PeriodStartTime	Date	Start period for report
7	PersonalVolumeMetric	TEXT	Measurement unit for

			personnel effort
8	ProjectCategory	TEXT	Project category
9	ProjectCode	TEXT	Project code
10	ProjectCost	NUMERIC	Sum of project costs
11	ProjectDuration	NUMERIC	Project duration
12	ProjectFinish	Date	Project finish
13	ProjectLabourIntensity	NUMERIC	Project effort
14	ProjectLabourIntensityDone	NUMERIC	Completed effort
15	ProjectLabourIntensityUnDone	NUMERIC	Open project effort
16	ProjectName	TEXT	Project name
17	ProjectPriority	NUMERIC	Project priority
18	ProjectStatus	TEXT	Project status
19	ProjectStart	Date	Project start
20	ProjectUserField1…10	TEXT	User-defined fields within the project
21	ReportSignature	TEXT	Signature for printing
22	SubprojectCategory	TEXT	Subproject category
23	SubprojectCode	TEXT	Subproject code
24	SubprojectCost	NUMERIC	Subproject costs
25	SubprojectDuration	NUMERIC	Subproject duration
26	SubprojectFinish	Date	Subproject finish
27	SubprojectLabourIntensity	NUMERIC	Subproject effort
28	SubprojectLabourIntensityDone	NUMERIC	Completed subproject effort
29	SubprojectLabourIntensityUnDone	NUMERIC	Open subproject effort

30	SubprojectName	TEXT	Subproject name
31	SubprojectPriority	NUMERIC	Subproject priority
32	SubprojectStatus	TEXT	Subproject status
33	SubprojectStart	Date	Subproject start
34	SubprojectUserField1…10	TEXT	User-defined fields within the subproject